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LECTURES
ON THE
THEORY AND PRACTICE OF MEDICINE;
NOW IN COURSE OF DELIVERY AT THE THEATRE OF ANATOMY AND MEDICINE, WEBB-STREET, SOUTHWARK.

BY

MARSHALL HALL, M.D., F.R.S. L. & E.
&c., &c.

EFFECTS OF THE LOSS OF BLOOD IN THE PUERPERAL STATE.—*Symptoms produced. Affections of the head and heart. Sudden dissolution. Crepitus in the respiratory sound. Cases illustrating the effects of loss of blood. Principles of treatment; local bleeding; laxatives; nourishment; fresh air. Avoidance of causes of disturbance. Opiates.*

GENTLEMEN:—Having detailed to you the particularities of abdominal inflammation, and of intestinal irritation, as *puerperal diseases*, I now proceed to do the same in regard to

THE EFFECTS OF LOSS OF BLOOD IN THE PUERPERAL STATE.

These effects of loss of blood usually present themselves to our notice in rather an insidious manner; they are not generally introduced by rigor, or heat, or any other acute symptom; though I think there may be exceptions to the last part of this rule. It is an important remark, that the remoter effects of loss of blood are frequently developed in cases in which there is also intestinal irritation in a dormant form, but that they very rarely occur in conjunction with inflammation; the effects of loss of blood, when they do occur in cases of inflammation, generally denote that the inflammatory action has been subdued.

I have already observed, that there is rarely either rigor or heat of surface; there may be transient chills and flushes, and slightly augmented temperature; but the countenance, and especially the prolabium, is generally pallid and the skin in a natural state.

The case is usually denoted by a throbbing fulness, with moderate frequency of the pulse, throbbing pain of the head, and palpitation of the heart, which is apt to alternate with a state of syncope on slight exertion, or on assuming the erect posture; and there is usually a degree of panting. There is a characteristic susceptibility to fainting, on taking a very small quantity of blood.

I have repeatedly known the effects of loss of blood to be mistaken for inflammation of the brain, on the one hand, and disease of the heart, on the other. I consider this an important remark, as suggesting at once two characteristics of this affection, and the necessary caution in the diagnosis in puerperal diseases.

When the head is affected from loss of blood, there are much beating and throbbing of the temples, pain, a sense of pressure, or vertigo, with rushing or cracking noises.

When the heart is affected, there are great fluttering, beating, or palpitation, starting during sleep, hurry and alarm on awaking, sometimes with faintishness, a feeling of sinking, or of impending dissolution, &c., and with the palpitation, there are frequently beating and throbbing of the carotids, and sometimes of the abdominal aorta, perceptible to the touch, or even to the eye. These affections sometimes recur in the form of attacks, which are attended by much hurry and alarm.

Besides these more marked affections of the head and heart, which render it so necessary to distinguish this affection from inflammation or disease of those organs respectively, there are many symptoms which occur in a less marked degree or form. There is frequently an inability to bear noise, or disturbance, or even the act of thinking with attention; but there is rarely intolerance of light; the last symptom usually denoting a state of intestinal irritation. There are frequently vertigo, or faintishness, on any exertion, or on assuming the erect posture; and when these two are combined, there has sometimes been a sud-

den and unexpected fatal termination of the patient's sufferings. In many cases there are great faintishness, and urgent demand for the smelling bottle, for the fan, or the fresh air, and for cold applications to the face or temples, and a sad feeling of impending dissolution. The respiration is affected, in different cases, with panting, hurry, sighing, heaving, blowing, moaning, gasping, catching, &c. There is, in some cases, an irritative cough, in violent fits, or in the form of perpetual hacking, apparently arising from an affection of the larynx and trachea. The stomach is liable to be affected with retching, vomiting, hiccough, and eructation, and the bowels, even in cases in which they were not previously disordered, become variously deranged, with constipation, diarrhœa, and flatulency.

There are frequently, in severe cases, urgent restlessness, and jactitation.

In some cases there are various spasmodic affections. In other instances there are catching pains, which are apt to be mistaken for inflammation.

There are frequent changes, sudden attacks of alarming symptoms, a sense and fear of impending dissolution, urgent messages, &c., which become sad characteristics of this affection.

Another characteristic consists in the faintishness, gasping, or feeling of dissolution, which sometimes follows even a slight bloodletting; an awfully sudden death has immediately ensued upon a full and mistaken bloodletting at this critical period.

Even the operation of purgative medicine has sometimes induced a degree of faintishness.

Every source of disturbance, of anxiety, or of alarm, and every kind of effort either of mind or body, is apt to be followed by a return or exasperation of the symptoms, and cannot be said to be free from danger.

I have already remarked, that an effort of the muscles, and assumption of the erect posture, have proved suddenly fatal. This sad event occurred to a lady who raised herself in bed, in this exhausted state, to make water; she fell down and expired.

But when the fatal event from loss of blood is not sudden, in this manner, the state of reaction sometimes yields to one of fatal sinking.

The symptoms of exhaustion with excessive reaction, may gradually subside and leave the patient feeble, but with returning health; or they may yield to the state of sinking. This term is adopted not to express a state of negative weakness merely, which may continue long and issue in eventual recovery; but to denote a state of positive and progressive failure of the vital powers, attended by its peculiar effects, and by a set of phenomena very different from those of exhaustion with reaction.

If in the latter, the energies of the system were augmented, in the former, the functions of the brain, the lungs, and the heart are singularly impaired. The sensibilities of the brain subside, and the patient is no longer affected by noises as before; there is, on the contrary, a tendency to dozing, and gradually some of those effects on the muscular system, which denote a diminished sensibility of the brain, supervene, as snoring, stertor, blowing up of the cheeks in breathing, &c.; instead of the hurry and alarm on awaking, as observed in the case of excessive reaction, the patient in the state of sinking requires a moment to recollect herself and recover her consciousness, is perhaps affected with slight delirium, and is apt to forget the circumstances of her situation, and, inattentive to the objects around her, to fall again into a state of dozing.

Not less remarkable is the effect of the state of exhaustion, with sinking, on the function of the lungs; indeed, the very first sure indication of this state is, I believe, to be found in the supervention of a crepitus in the respiration, only to be heard at first on the most attentive listening; this crepitus gradually becomes more audible, and passes into slight rattling, heard in the situation of the bronchia and trachea; there is also a degree of labour or oppression, sighing, hurry, and blowing in the breathing, inducing acuteness in the nostrils, which are dilated below and drawn in above the lobes, at each inspiration; in some cases there is besides, a peculiar catching, laryngeal cough which is especially apt to come on during sleep, and awakes or imperfectly awakes the patient.

The heart has, at the same time, lost its violent beat and palpitation, and the pulse and arteries their bounding or throbbing.

The stomach and bowels become disordered, flatulent, and tympanitic, and the command over the sphincters is impaired.

The last stage of sinking is denoted by a pale and sunk countenance, inquietude, jactitation, delirium, and coldness of the extremities.

I shall exemplify the effects of loss of blood in the puerperal state, by several interesting cases. They will serve as examples, and as guides, in regard to these fearful events.

Mrs. ——, aged 35, was confined on Friday the 11th of June. For several weeks previously to delivery, she had been subject to pain of the head, and of the left side, which were relieved by an attention to the state of the bowels.

After the expulsion of the placenta, there was considerable hæmorrhage, which induced great exhaustion; two doses of forty drops of tinctura opii were given within two hours, with the effect of producing sleep. The flow of milk commenced on the same day, and was very copious.

About three hours after delivery, Mrs. —— was seized with a violent pain of the crown of the head, confined to a space which could be covered by the hand; the pulse was 80 only; there was much thirst; the tongue was little affected; the skin was natural. This pain was relieved by the cold lotion, and opening medicines, and Mrs. —— continued better during ten days.

On the night of Monday, June the 21st, Mrs. —— was taken about 12 o'clock, with severe shivering, which was succeeded by intense heat and dryness of the skin, great pain of the head, and intolerance of light and of noise. At ten o'clock on the succeeding morning, these symptoms still continued; the pulse was from 120 to 130, and sharp; the pain of the head was throbbing, and the head felt as if bound tight; the tongue was parched. Ten ounces of blood were taken from the arm, which produced temporary faintness, but some relief; the cold lotion was applied to the temples. At seven o'clock in the evening, the pain of the head was as severe as ever, especially if the lotion were not constantly applied; the pulse was 120; the tongue not so dry; the blood already drawn was buffy. Twelve ounces of blood were taken from the arm. This was followed by great faintness, and gasping breathing—to such a degree, indeed, as to lead even to the apprehension of dissolution. On recovery, the pain, and intolerance of light and sound remained as before; the pulse rose to 130. Leeches were applied to the temples and the cold lotion over the head; two grains of calomel were ordered to be taken every two hours; and an opening mixture and an enema were prescribed.

At four o'clock of the morning of Wednesday the 23d, the symptoms continued with little change; the pulse was 120; there was much gaping. Six leeches were applied to the temples, a blister to the nape of the neck, and the medicines were continued.

On Thursday morning, the 24th, the pulse was 100, and she appeared better, but complained of a degree of beating of the heart. At four in the afternoon the pulse was 120, the breathing was deep, sighing, and rare, and there was a sense of fluttering at the heart, the affection of the head still continuing. Two grains of opium and five of calomel ordered to be taken immediately.

At two o'clock on Friday morning, Mrs. —— was distressed with a feeling of hurry, of impending dissolution, and of being "overcome" by sleep; the pulse was 120; and there were sighing and interrupted breathing. At eleven o'clock she was more comfortable,—the pulse was 100; there was less pain of the head, and of intolerance of light and sound, less sighing, and less faintishness; she had been able to sleep for ten or fifteen minutes without feeling overcome; there was some fluttering.

From this day the amendment was progressive, though slow, and on the 29th, the following report was made. There have been some pain of the head, fluttering, faintishness, feeling of dissolution, sighing, breathing, restlessness, &c. at different times, but less than on the 25th; the skin has been in general hot, but once moist; the pulse about 100; the bowels rather disordered, and the stools dark and offensive.

A similar report was made on July the 3d. It also stated that the pulse was easily hurried, that there was an evident movement of the abdomen from the action of the aorta; and that there had been occasionally hurry and alarm during sleep.

On July the 7th, it is reported that Mrs. —— is greatly susceptible of the effects of corporal exertion or mental emotion, which induce hurry, throbbing, palpitation, &c.; and there are still some throbbing or pulsation observed in the neck and about the heart; some tendency to sighing breathing, faintishness, &c.; there is also a return of the pain of the left side experienced during the later period of pregnancy.

On July the 16th there were still throbbing and palpitation on any exertion, and hurry on the slightest occasion; lowness and faintness; starting and hurry on falling asleep and on awaking; and a visible pulsation of the abdomen.

From this period, until the 4th of August, Mrs. —— continued to recover in the most favourable manner, when she again experienced a degree of shivering, heat, and pain of the head, and of the side. The medical attendants were called; the pulse was 104; the skin hot; there were pain of the head; the feeling of dissolution on falling asleep; fluttering; faintishness; repugnance to food; severe but ineffectual retching; the flow of milk lessened; no vaginal discharge. She could not bear to sit up, the window was wide open, a fan and smelling bottle lay on the bed, and the candle was shaded. The bowels had been moved and some dark and fœtid motions passed.

The anorexia had existed for some days, the bowels had been disordered, and Mrs. —— had parted with Mr. ——, who was gone a journey, circumstances which had appeared to conduce to this attack. A brisk purgative was prescribed, and a draught with tinctura opii, spiritus ammoniæ aromaticus, and ether, was directed to be taken, if the operation of the purge should be too great. In the evening I found the medicine had induced four or five alvine evacuations, which were free from fœtor or even odour. The feeling of faintness continued, and the pulse was extremely uncertain in frequency varying from 84 to 100 in a minute; there were frequent deep sighs, and often gasping, with loathing, nausea, and occasionally severe retching. Some beating about the chest, some restlessness, and con-

siderable tremor. She took a little dry toast, a little weak brandy and water, and a little porter, and was ordered half a grain of opium, two grains of carbonas ammoniæ, and three of extractum hyoscyami, to be taken every three hours. This induced much sleep, the first part of which was attended with the same overwhelming feeling as before, but the latter greatly refreshing, and on the morning of August the 5th, she was better in every respect. In the evening she was still better, but complained of oppression, which was attributed to the extreme closeness of the evening. There had been one feculent motion.

On August the 6th, Mrs. —— was very much better. There had been a dark, fœtid, alvine evacuation.

From this time the recovery was progressive, rapid, and permanent, and the patient continues to enjoy a good state of health, with the exception of a disordered state of the digestive organs.

Mrs. ——, aged 44, mother of a large family, became pregnant about the beginning of October, and from that period was subject to sickness and a very irregular state of the bowels, constipation continually alternating with diarrhœa. About the ninth week after conception, there was a flow of fluid by the vagina, which did not coagulate; this flow continued a week, then ceased, but afterwards returned and continued, with the exception of two or three days, until at length the discharge formed into coagula, and abortion took place five weeks after the first flow.

Subsequently to this event there were weekly returns of uterine hæmorrhage, which continued for about two days, and then ceased again to recur, after an interval of about five days.

Before and after the abortion Mrs. —— experienced much tremor, faintishness, and fluttering, and was unable to bear any noise or cause of hurry. These symptoms were aggravated more and more at each recurrence of the hæmorrhage, which was always preceded by tumidity and a sense of fluttering about the abdomen, and by a peculiar inability to bear any noise or hurry, which always induced the feeling of approaching dissolution; after the loss of blood there were also severe pain of the forehead, and palpitation of the heart, with tendency to syncope, chilliness, sense of want of air, &c. These symptoms became more and more distressing and serious at each return. The feeling of impending dissolution was so dreadful at length, that, as the patient expresses herself, not only noise and hurry, but even thinking, was too much for her; and the subsequent affection of the head, &c., became very alarming.

I saw Mrs. —— on February the 22d. She then complained of severe pain and heaviness of the head, with vertigo on raising herself from the pillow, of deafness, with a humming noise and beating in the ears, and of dimness of sight. She had been very wakeful, but on falling asleep at any time, she awoke hurried, alarmed, and overcome, and experiencing a sense of dissolution; or, if she continued to sleep, she was much disturbed by frightful dreams. She had much palpitation of the heart, with fluttering, and a very irregular and intermittent pulse; these symptoms were so much aggravated by any noise or disturbance, as to induce the feeling of impending dissolution, or as the patient expresses it, of "instant death." There was also great tendency to syncope, requiring the window to be opened, the face to be washed with vinegar, and the smelling bottle to be applied to the nostrils; other odours, however, could not be borne. There was no nausea or sickness. The bowels had all along required purgative medicines, and the alvine evacuations were copious, dark-coloured, and fœtid. There was much loud rolling of the bowels. No pain of the side or uterine region. There were great pallidness and loss of flesh.

The affection of the head and other symptoms were not only aggravated, but distinctly reproduced, by each return of the flooding, and the patient was always enabled to foretell the recurrence of hæmorrhage by her feelings of internal abdominal fluttering and fulness, and the effect experienced from noise and disturbance.

I prescribed a lotion consisting of two drachms of sulphas zinci, dissolved in sixteen ounces of water, to be inserted by means of a scroll of linen into the vagina; purgative medicines, and the saline effervescing mixture. The lotion suppressed the hæmorrhage, of which she had only one recurrence, and she recovered most speedily and favourably.

Mrs. ——, aged 24, was affected with continued and profuse uterine hæmorrhage after delivery, for many weeks. The countenance became, in consequence, extremely pale and exanguinious, as well as the hands and general surface; the pulse became frequent and bounding; the head affected with throbbing pain, and, afterwards, the heart with beating, the action of the carotids being very evident to the eye and to the finger; the tongue was furred, and affected with large and prominent papillæ; and the alvine evacuations were very fœtid. Mrs. —— recovered much from taking opiate and aperient medicines, and on being allowed a little ale,

In this state of convalescence Mrs. —— was extremely alarmed and agitated by the occurrence of a storm of thunder and lightning, and became affected with excessive diarrhœa, hurry, and palpitation of the heart, the pulse being too frequent to be counted, and threatening of dissolution. This state was relieved by opiates.

On the succeeding day the countenance was again exanguinious, the pulse extremely frequent, the carotids beat violently, and there were great hurry, faintishness, and debility; the appetite, which had previously returned, again failed; the bowels were open; there was pain from retention of urine; no uterine discharge.

From this time Mrs. —— recovered favourably and permanently, on using the same medicines as before.

The cases which have been now detailed, will sufficiently display the usual symptoms and effects of loss of blood in the puerperal state, and demonstrate the danger, in different cases, of mistaking these effects for inflammation, or disease of the brain or heart, according as the symptoms affecting the former or latter organ, may predominate. The first will strongly illustrate the danger of drawing a wrong inference from the effects of bloodletting in such cases; for the symptoms were all relieved by this measure; but its repetition was attended with some alarm, if not hazard. This case illustrates another point, which is, that leeches applied to the temples may relieve and be admissible when general bloodletting is inadmissible. It is further to be observed, too, that the application of leeches to the temples was not followed by the same degree of reaction as the bloodletting; so that, in this respect also, they formed the appropriate remedy. The second, and especially the third of these cases, strongly exemplify the symptoms of affection of the heart arising from loss of blood.

I now propose to detail the principles of the treatment in cases of the effects of loss of blood in the puerperal state.

In the first place the state of exhaustion from loss of blood, with or without reaction, by no means precludes the possibility of congestion within the head. And it is no less certain that the application of leeches to the temples, or of the cupping-glass to the back of the neck, relieves the symptoms of affection of the head, arising from loss of blood, in a remarkable manner. In a case given by Mr. Hey, in his work on puerperal fever, which I regard as being of this character, and to which I shall have occasion to revert hereafter, urgent symptoms of affection of the head were twice relieved by the abstraction of but three ounces of blood from the temporal artery. This mode of treatment must not, therefore, be neglected, except in the most extreme cases, in which the loss of even so small a quantity of blood, and that from the head even, might precipitate the remaining powers of the patient.

The next point of practice which requires to be mentioned is the state of the stomach and bowels. If these were free from all disorder before the occurrence of the loss of blood, yet the state of exhaustion ever induces a deranged state of the alimentary canal. The state of the bowels must, therefore, claim our attentive consideration in every case of symptoms arising from loss of blood. Their functions and tone must be carefully restored by every means in our power, while we as carefully avoid any fresh source of exhaustion. The bowels must, in particular, be carefully evacuated daily. This may perhaps be best done by means of the warm water injection, so often recommended in these lectures already, with or without the aid of a draught containing an ounce of the infusion, and two or three drachms of the compound tincture of rhubarb, and of manna.

By these means, the state of irritability which is so apt to affect the system, and especially the head and the heart, in cases of exhaustion from loss of blood, is greatly obviated. But, for this affection, it is frequently also necessary to give some mild but efficient anodyne. The tinctura opii, the tinctura hyoscyami, the spiritus ammoniæ aromaticus, &c., are extremely useful remedies in this affection. But perhaps the best are the liquor opii sedativus of Battley, or the extract of poppy, given in efficient doses.

When the head, the heart, and the alimentary canal have been thus relieved, and even during the exhibition of the medicines which have been enumerated, it is of the first importance to attend to all the following points: viz., nourishment, fresh air, quiet, soothing, sleep, &c.

It is difficult to give any rule for the administration of nourishment. But the first rule is to ascertain that the bowels have been properly evacuated; otherwise food will only oppress the stomach; the second is to give the nourishment itself in such forms as will prove light and easy of digestion; the third, is that it should be taken at first very slowly and in small quantities, Arrow-root done in water, beef-tea, panado, sago, &c., may be given frequently.

The best restorative we possess, is, I believe, fresh air; but it is especially the best in the cases under consideration. The warmth and closeness of a lying-in-room, must therefore be forthwith exchanged for free ventilation, only observing the due precautions against giving cold.

Nothing is more essential than quiet, both of body and mind. Bodily exertion leads to still further exhaustion, and perhaps even to unexpected dissolution. And every kind of mental effort or hurry, not only exhausts the patient's strength, but is extremely apt to lead to those attacks of symptoms of irritability, of which I have given so full a description.

The patient should be soothed and lulled in every possible way; and it is of the utmost importance to procure sleep. But it should be observed, in regard to sleep, that too long a sleep is apt to exhaust or overwhelm the patient. This is especially true if

it be not preceded by nourishmeat. The sleep is also apt to be injurious by leading to turbulent dreams, which have the same bad effects as waking hurry of mind; the sleep should, therefore, be watched, and it should be interrupted if the patient is observed to suffer from agitation; this is best done, I think, by offering nourishment, for the patient is immediately collected, on awaking, from knowing what is doing.

There is one point which I have not hitherto mentioned as it deserves. It is the efforts made by the parent to suckle her infant. Nothing is so injurious in *all* puerperal diseases. These morbid affections have often appeared to be first induced by the attempt to nurse; and they have still more freely been exasperated by it. This attempt especially involves, within itself, almost everything which can be injurious in a state of exhaustion; the drain, the muscular effort, the mental excitement, implied in the act of suckling, are all of the most injurious tendency in this affection.

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS;
NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE
BY
GEORGE G. SIGMOND, M.D.

CASSIA SENNA.—*Botanical description of the Cassia Senna; countries whence obtained. Antiquity of the use of senna; its properties and medicinal powers; pharmaceutical preparations. Objections against syrups.*

CASSIA FISTULA.—*Description of the tree. Preparations in use.*

CASSIA SENNA.

GENTLEMEN:—The leaves of senna furnish a very useful purgative, and though from the circumstance of its being so commonly employed as a domestic remedy, it seems to be almost beneath the dignity of that science which has such important objects always placed before it, to enter with any minuteness upon its consideration; still it is by no means so much a matter of course as might at first be imagined to arrive at all the circumstances connected with the importation of this common drug; indeed, we have had such varied qualities introduced into our markets at different periods, that so far from our having very accurate knowledge of the true plant which yields the leaves, we have many varying opinions, and there is a constant admixture in the best specimens which are placed before us that requires all the acumen of the botanist, and the practical experience of the druggist to form appropriate distinctions. The family of cassia, ranged under the great tribe, leguminosæ, contains a great number of species, and of these the obovata and the lanceolata are the two most conspicuous, as furnishing the cassia of commerce; but with these are generally mingled the cynanchum arquel, and it has been calculated that of a thousand parts the proportions are five hundred of the cassia lanceolata, three hundred of the cassia obovata, and two hundred of the cynanchum arquel. From the great commercial intercourse which has been lately carried on from different European states with Egypt, some expectations have arisen that have not yet been realised, that we shall have a better drug imported under the name of senna than we now have; and it was at one time stated that the Pacha of Egypt had directed that greater attention should be paid by the men of science who have joined his banners than was formerly devoted to the subject; but notwithstanding the anticipations that were excited there is at this time a very inferior article imported, and great complaints have been made of the present state of the market. It would appear from the botanical descriptions that have been offered to us of the plants which yield the best leaves, that they rise with a somewhat woody stem to the height of between two and three feet, that the stems are branching, that the leaves are alternate, each composed of five or six leaflets, arranged in pairs about an inch long, and that these are, when first gathered, of a bright yellowish-green, but after some keeping they lose their fine tinge, and likewise that firm texture which at first distinguishes them; the flowers are pale-yellow, in loose axillary racemes on the upper part of the stem; the calyx is monophyllous; the carolla consists of five round concave petals, the three lowest being the largest; they are decandrious, and have large curved anthers; the stigma is short and obtuse, supported upon a curved style; the germen is cylindrical; the legumen is kidney-shaped, having strongly-marked parallel striæ, with cells divided from each other by their membranous partitions, each containing one oblong heart-shaped seed. It is particularly in Nubia, Syria, Arabia, and Upper Egypt that the senna grows, and as we principally, if not almost entirely, receive it from the Egyptian port Alexandria, it is generally known to us in contradistinction to that which comes to us from the East Indies by the name of Alexandrian senna. Attempts have been made to rear senna in England, and the plants have thrived very well, but the seeds for future planting have not been found to arrive at full perfection for that purpose. The seeds obtained elsewhere are sown in the early

part of the spring, and when the plants are fit for removal it has been found necessary to place each of them in separate pots filled with light earth, and then plunge them in a well shaded hot-bed until they have taken root; fresh air is to be duly admitted, and they are to be frequently watered; after a time, when the roots have fully expanded, they are removed and shifted into larger pots; care must be taken for their defence against cold air, and they then vegetate and become plants, possessing in their leaves a full share of medicinal power. The three varieties known in our drug market are the Alexandrian, the Tripoli, and the East Indian; it would appear that both of the former come from Nubia, a narrow valley through which flows the Nile; the chief production of the soil is the senna and the arquel, which grow without any particular cultivation on the sides of the hills, and the only labour requisite is cutting and spreading the leaves to dry. It would appear from M. Nectoux that the Egyptian merchants mix a large proportion of the senna belledy, or the wild senna of Linnæus, with that brought from Nubia, and he recommends to his government the introduction into France of the cassia lanceolata of Lamarck, and the arquel cynanchum oleafolium, C. Arguel of Nectoux. Deslongchamps, in the "Manuel des Plantes Usuelles Indigenes," states that there are six different plants which possess all the powers of senna as obtained from Egypt, and which might be substituted for it: globularia alypum, anagris fœtida, cneorum tricoccon, and three species of daphne. Bartholin states that the leaves of colutea arborescens are often substituted for the true senna. The East Indian senna has its leaf very considerably longer than either of the other two; this we learn from Dr. Ainslie is a product of Arabia Felix, about Mocho, or from a more northern part of the country, the territory of Orbuarish. The senna in common use amongst the Indian practitioners is the senna Italica, senna foliis obtusis, the blunt-leaved; it is a common plant on the Coromandel coast, but is not nearly so valuable a medicine as the sharp-pointed senna. In America chamæsenna Marylandica is the officinal species.

It has been argued that senna was known at a very early period, and the word cassia found in Dioscorides has been said by Olaus Celsus to have been derived from a Hebrew word which is something similiar; but it would appear that the Arabic name of the plant from which the leaves are gathered is sena, and that it is to the Arabian physicians we are indebted for the knowledge we now possess of the value of the drug, though they employed the pod as a purgative medicine, of which they speak in very warm terms; the French school some time since again reintroduced the use of the legume, which we are given to understand has much less disagreeable flavour and odour, and is much less likely to produce any griping pain; they, however, possess much less purgative power according to Lieutaud. The leaves of the plant have been used in the form of smoke, very much in the same way as tobacco, for the purpose of exciting an increased secretion from the mucous membranes of the nose and fauces, and where after an attack of apoplexy, great pain in the head, loss of memory, and general weakness of understanding have been left as the sequelæ, this mode of using senna has been tried with successful results, and this has occurred from senna grown in Europe, and also according to Bartholinus from the colutea arborescens used in its stead.

Senna has a bitter, sickly, disagreeable taste, and the better senna is more nauseous than that of inferior quality; that grown in Europe has very slight bitterness; the active power seems particularly dependent on the development of this taste, and, indeed, it has been noticed that infusions of the drug act with considerably more power and certainty if it be conjoined with any medicine remarkable for its bitterness. Hence a few drops of infusion of quassia, or a small quantity of infusion of calumba, will render a dose of infusion of senna much more active. A few drops of the tincture of hops will also materially aid its action. Cullen made some observations on these mixtures, and observes that a smaller quantity of the leaves is required for a dose if they be infused in company with some bitter plant. The common infusion of the leaves of senna, the basis of the black draught, is very much improved by infusing with it four drachms of hops, and this also preserves it longer. The compound infusion of senna of the London Pharmacopœia is formed of fifteen drachms of senna leaves, of four scruples of sliced ginger, and of a pint of boiling distilled water; the maceration is to take place for an hour, in a vessel lightly covered, and the fluid is then to be strained. Dr. Paris has observed that the nausea may be completely covered by the addition of bohea tea. Decoction of guiaca is occasionally used to render it milder; a few drops of tincture of hyoscyamus, or the camphor mixture, also are favourite adjuncts of some professional men. The infusion is quickly spoiled by keeping, and therefore should be made when required; the action of the air throws down a yellowish precipitation and deteriorates the infusion. It is stated that a pint of water is requisite to take up the active properties of an ounce. A substance has been obtained from senna to which the name of cathartine has been given, which is considered the purgative principle. It is not crystallised; it is of a yellow-reddish colour,

has a peculiar smell, and a strikingly nauseous taste; it is soluble in alcohol and in water, and acts powerfully upon the bowels.

Various substitutes have been proposed for the infusion; it is often instantaneously required, and as the infusion will not keep for many hours, various preparations have been made to supply its place. Mr. Bass, of New Bond-street, invented an essence some time since; and from a letter in the "Medical Gazette," from Dr. Baker, about ten years since, it would seem, that of this preparation one fluid drachm, added to seven drachms of water, equals in strength one ounce of the compound infusion of senna of the London Pharmacopœia; and that it is a certain, uniform, and not disagreeable cathartic, not occasioning griping. Mr. Freeman, a pharmaceutical chemist, has also prepared a concentrated syrup of senna, of which from one drachm to three drachms is a dose, which forms a very useful and well-prepared remedy, which keeps a sufficient length of time, and is therefore preferable to the common infusion.

Speaking generally, I have great objection to the employment of all the syrups, they so speedily undergo decomposition; they are so variable in their strength, and they so quickly turn acid, that no dependence is to be placed upon them; but this is not the case with the syrup of which I have just spoken; and it is necessary for me here to make an observation upon what fell from me on a former occasion, and went forth to the public in THE LANCET with regard to the syrup of sarsaparilla prepared by Mr. Hudson of the Haymarket. He requested me, from what I then stated, to witness the apparatus and the process for making the syrup, which I had believed to be kept a secret. I must express myself very much pleased with the opportunity he gave me of making myself acquainted with the steps he pursues, and I am very highly pleased with his syrup of sarsaparilla, of which I have given a very fair trial, and with success. I did not expect to have had reason to speak highly of a syrup; but I find it can be long kept, and that it maintains its efficacy. It is not inferior to any preparations of sarsaparilla which I have employed, and is certainly better than that which is obtained by the process recommended by the Royal College of Physicians.

The syrup of senna of the Pharmacopœia is intended for children, and is liable to the objections that are naturally raised against all syrups; it, however, disguises the flavour of the infusion. It is thus directed to be made:—Take of senna two ounces and a half, fennel, bruised, ten drachms, manna three ounces, sugar fifteen ounces, boiling water a pint; macerate the senna and fennel in the water, with a gentle heat, for an hour; mix the manna and sugar with the strained liquor, then boil down to a proper consistence. The compound tincture of senna is supposed to have been ordered as a substitute for Daffy's Elixir, and is thus made:—Take of senna three ounces and a half, carraway, bruised, three drachms and a half, cardamon, bruised, a drachm, raisins five ounces, proof spirit two pints; macerate for fourteen days, and strain. This is a good purgative in the dose of two or three drachms, and may very well be added to the infusion. The confectio sennæ, or the old lenitive electuary, has been time out of mind a favourite remedy in this country amongst practitioners, and although now it is less in fashion than it formerly was, it has many claims to consideration from its mild operation and its certainty, in ordinary cases of constipation. Confections were once the most common forms of remedies, more particularly before the habit of employing neutral salts became so general, the confection of senna was, above all others, recommended, and a teaspoonful at night of this electuary was recommended as a prophylactic against almost every complaint. As it now stands on our books, it is formed of senna leaves, in very fine powder, four ounces; pulp of prunes a pound, pulp of tamarinds two ounces, molasses a pint and a half, essential oil of carraways two drachms; boil the pulps with the syrup to the thickness of honey, then add the powder, and when the mixture is nearly cold, the oil, finally mix the whole thoroughly together. In the days of Quincy these preparations made a great part of the officinal compositions, and he observes "they are much the most extensive form for internal use, for they take in almost the whole materia medica in one intention or other," "for though many samples have, from their texture, a natural unfitness for some forms, yet there are hardly any which are not reducible, one way or other, into this; and the whole skill of the compounder consists in knowing that particular management which simples of different textures require to incorporate them thus together." So late as 1782 this was the great knowledge required for the pharmaceutical chemist and for the able physician. What change has science produced, and how may the patient congratulate himself that the great art of making up a medicine no longer consists in bringing into a heterogeneous form any articles which were to be swallowed out of a teaspoon, in the form of a thick viscid mass, which adhered to the mouth and fauces in the most pertinacious manner, and generally required two or three good gulps for fear it should stick in the gullet; and which we find upon the same authority, often caused that "many things are ordered together, which by that time they came to the patient cannot be contained in their vessels, and gave a great deal of dislike, upon a suspicion of a fault in the materials or in the

apothecary, whereas it is really in the prescriber." The electuary of senna maintains, to this day, some degree of reputation, and is certainly one of the best of this almost disused forms, for, with the exception of the aromatic confection, which is still highly prized as an elegant and useful medicine, the others are considered merely as adjuncts, and most of them only useful from the facilities which they afford of making pills with other more active agents. To pregnant women it is often administered, in some states of affection of the lower bowels; thus, united with sulphur, in affections of the rectum, depending either upon a faulty state of the mucous membrane, or upon morbid conditions of the hæmorrhoidal vessels, it is frequently advantageously employed; it is likewise used as an adjunct to other medicines, nor is it so liable to gripe and torment the intestinal canal as some other of the preparations of senna.

Murray, of Gottingen, objects to the administration of senna in acute fevers. He states his belief that the febrile heat is augmented; and Geoffroy concurs with him in his views upon the subject, and he also is prejudiced against its employment during hæmorrhage and affections of the chest. Willan's observations upon its being prejudicial in every stage of dysentery, have been borne out by the testimony of succeeding writers on that disease, all of whom agree that griping, and even inflammation are often produced and augmented by it, where the bowels are already in a state of disease. Some have imagined that the severe pinching, which is so often attendant upon senna, is occasioned by the presence of the stalks, Bergius has demonstrated by very satisfactory experiments, that the same effect is produced when these are removed, and some of the foreign Pharmacopœias expressly direct that the senna with the foot-stalks should be used for making the common infusion; one of the surest practices is to put in the senna some time after the water has commenced boiling. It should always, too, be remembered that it loses its efficacy by long-continued boiling. This remedy should carefully be avoided by a mother during lactation, for the cathartic influence is conveyed to the child, and sometimes severe griping is the consequence, as Bergius originally pointed out.

CASSIA FISTULA.

The pulp of the pod of a species of cassia growing in Egypt, and the countries in its immediate neighbourhood, has long been employed medicinally, and though pronounced by some very high authorities to possess no advantage whatever over the pulp of prunes, is recommended by some physicians as a valuable laxative in old age; that it enters into the circulation rapidly, and produces some influence, is fully proved by the alteration in the colour of the urinary excretion that follows upon its use. This is quickly rendered sometimes of a green colour, and if it be given in a larger quantity, of a deep brown or black. Boerhaave observes, that if taken fasting the secretion becomes black. When mixed with rhubarb, not only is the colour changed, but a peculiar odour is the result. The water doctors, once such successful practitioners, availed themselves of this kind of knowledge, and when they had administered remedies of this kind foretold to their credulous patients the occurrence of a crisis to be denoted by the colour and odour of the urine. This effect, however, does not at all times follow. Sommer, Gmelin, and Bergius, were very anxious to trace the effects of cassia in this way, and to watch the discoloration produced, as it has been spoken of by Avicenna, by Lobecke, and by Lewis, but their testimony is at variance with that produced by the latter authorities.

Whether this be the exarxamber of Serapion, the chaiarlauder of Avicenna, and the black cassia of Actuarius, and the less ancient of the Greek writers, has been the subject of inquiry. Theophrastus speaks of the siliqua Ægyptiaca, and it has been supposed to be this tree which Dr. Hasselquist found growing there on the banks of the Nile in the neighbourhood of Alexandria, and the Arabs call it at this day by a name very similar to that which is spoken of by Serapion,—hearsciambar.

When this tree is at its full growth it is from thirty to forty feet in height. It is covered by a brown bark, which is much furrowed and cracked; its wood is white and soft; its leaves are alternate, pinnate, and composed of five or six pair of ovate undulated leaflets of a pale green colour, finely nerved with a prominent midrib underneath, and supported on short petioles; the flowers are large, and of an agreeable odour, yellow, veined, and in long pendant axillary racemes. It seems from Prosper Alpinus that the odour from the flowers is so agreeable that the Egyptians walk in the plantations to regale themselves with their fragrance, and hence probably their name assimilates with that of the delightful oriental spice so famed from the earliest period of sacred and profane history. The calyx consists of five oblong, blunt, greenish, crenated leaves; the corolla of five petals, which are concave roundish, and spreading; the fruit is a long woody, dark-brown pod, about an inch in diameter, and two feet in length, cylindrical, and marked with two long, longitudinal furrows, on one side, and one on the other; the internal cavity is divided by thin plates of cellular substance into cells, each of which contains one smooth seed, of a dusky brown colour imbedded in the soft black pulp, which is the portion which is more particularly the subject of our present consideration.

The legumen, or pod, at first, when hanging on the tree, is green and soft, but it soon becomes brown and ligneous; those which grow in India are less hard, and are slender in their form. This tree grows in great perfection in St. Domingo, from which, for a long period, the pods were sent to Spain, and were very much prized; and Monardes speaks of the tree being planted also in Spain, and yielding a fruit not at all inferior to that produced in the West Indies. In Egypt the legumes are plucked from the tree before they have arrived at maturity, and placed in houses to which neither light nor heat can have access; they are placed between palm leaves, and for forty days daily sprinkled with water; those are then selected which are not too old, which are not very light, and which have their external covering rough; sometimes the legumes are boiled in water, have sugar added to them, and thus form a sort of preserve which is purgative; but the most usual plan is to forward the legumes to the different ports in their dry state. These are to be bruised, and upon boiling the pulp exudes, which is passed through a sieve, and sugar added until a proper consistence is attained; this is sweetish, and very quickly becomes acid; it should be of a shining bright black colour, and with rather a nauseous odour. Both Vauquelin and Henry have examined into the chemical constitution of this pulp, from which it would appear to consist of a gummy, a glutinous, a saccharine, and a colouring matter, and also of a substance which bears a striking resemblance to tannin.

The electuary, or confection of cassia, is thus made:—Take of fresh cassia pulp half a pound, manna two ounces, tamarind pulp an ounce, syrup of roses eight fluid ounces; bruise the manna, then dissolve it in the syrup; after mix in the cassia and tamarind pulps, evaporate down to a proper consistence; half an ounce of this has been supposed to be the proper dose, but the laxative power is feeble, and requires the assistance of the supertartrate of potash, of jalap, or some more powerful remedy to render it really useful. Cullen has great contempt for cassia pulp; but Murray entertains a very favourable opinion of its efficacy for children, for parturient females, and for old people; and even speaks of its power in fever of restraining thirst, and correcting the secretions; he also alludes to its employment in calculus, in hysteria, and in melancholia, but in none of these diseases is it employed. The only advantage is in the constipation of people advanced in years, in whom this uncomfortable state arises rather from a rigid state of the fibres of the muscles upon whose action the peristaltic action depends, than from a want of proper biliary secretion. In such cases the cassia senna, either given in its pulp or in the form of confection, is often found very serviceable, neither exciting griping nor heat, but blandly exercising its power over the canal. It should, however, more generally be prescribed in combination, for so large a dose of it alone would overpower the stomach and produce a quantity of flatus. Malouin has made us acquainted with a fact which has been borne out by the frequent repetition, that cassia reduces very strikingly the power of the tartar emetic, so that four grains and a half have been given at one dose, without producing severe vomiting or any sort of mischief. When the pulp has been too long kept, it is apt to become rancid, and then to be highly deleterious.

The cassia occidentalis, and the cassia Marilandica are species of this family which have been employed medicinally; the latter is officinal, and Barton in the "Vegetable Materia Medica of the United States," has given an account of it, and bears testimony to its high character, having employed it in many instances most advantageously as a substitute for Alexandrian senna.

ON

ORGANISATION AND LIFE.

By J. JOHNSTON KELSO, *M.D., Lisburn.*

"LIFE," says Mr. Lawrence, "presupposes organisation, as the movements of a watch presuppose the wheels, levers, and other mechanism of the instrument."—(*Lectures on the Physiology, &c., of Man.*) And, conversely, organisation presumes "the active state of the animal structures," or, in a word—life; as death no sooner takes place than the process of destruction begins. The intimate connection and mutual relationship of the one with the other, which, as an eloquent living writer observes, "is too mysterious to be explained," is nevertheless so evident, and now so generally admitted by all, that it may be correctly considered as a first fact in physiology. Mr. Hunter, therefore, must be considered in error in asserting that "organisation and life are two different things." Difference there may be in the abstract sense in which these terms are conventionally employed, but, practically viewed, they are assuredly one and inseparable.

Premising that organised matter is merely a modification of common matter, through the inexplicable influence of life, organisation is, at least in the sense and language of Mr. Hunter, "the compounding of the materials of animal matter,—*materials* the result of combination and arrangement consequent on the previous decomposition of original or inorganic matter. Parts (according to this authority) are first formed from these materials, which on being united, form organs, the junction of a certain number of which, according to certain established rules, are

essential to the formation of animals."—(*Works, by Palmer.*)

But, with all my great admiration for the penetrating genius of this distinguished physiologist, the definition of organisation here given is, I submit, too contracted and refined, embracing only, as it does, within its meaning, that of the higher orders of animal existence. The idea, too, of Haller, Dr. William Hunter, and others, which ascribes organisation to be synonymous with vascularity, is still more objectionable, because far more hypothetical.

Matter, it is almost superfluous here to remark, presents itself to our cognizance under two aspects only; either as inorganic brute matter, which forms the vast proportion of the natural objects everywhere around us, or as organised living matter. Between these different kinds of matter there is a broad line of demarcation; for the former is especially characterised by its homogeneous composition, its indeterminate volume, its flat and angular form, its increasing by external accretion, and being indefinite as to its duration, from its containing within itself no causes of decay; whilst the latter is no less distinguished by the heterogeneousness of its component elements, and their definite arrangement and organic union, its determinate volume, its rounded or curved form, its increasing by interstitial deposition, and being capable from its very nature of a limited existence only. "And," as is justly observed by Professor Elliotson, "how deep the chasm between the vital organisation of the meanest vegetable, and a mass of inanimate matter!"—(*Human Physiology*, Part I.)

If all this be admitted to be founded in fact, and there will be none, I think, disposed to dispute its perfect correctness, the science of organisation must evidently be allowed a much more comprehensive latitude than that to which it is restricted by those authors to whom I have above alluded, and to be, in point of fact, admitted as coexistent with the very dawn of vital action itself; for life is organisation in action, or, in the phraseology of Stahl, it is *organism*.

Organisation may, however, without the involvement of any hypothesis, be correctly defined to be the definite arrangement, according to certain established laws, of the ultimate molecules of organic matter, by which certain organic bodies, of a determinate volume,—of a structure essentially areolar or cellular, for the circulation of the contained fluids,—characterised by the performance of special phenomena and particular functions, and destined in their nature for a limited existence only—a period of growth, of perfection, and of decay, with the power of producing all of them their like, are generated. "It is this proper form, this structure common to all living bodies, this areolar tissue, containing fluids more or less abundant, and of the same nature as itself, that is called *organisation*."—(*Beclard.*)

Inanimate matter being so changed and recomposed as to have become an organised structure, in addition to those physical properties by which it is characterised in its original simple state, is endowed with others superadded and peculiar to itself, in its then modified condition. These additional properties, which have been designated by the common name of *vital*, vary remarkably not only in *kind*, but in *degree*, in the different phases of the progressive evolution of organised matter, from the simplest of organic structures, the *lichen*, which struggles through its ephemeral existence, either upon the confines of eternal snow, or upon the regions of the torrid zone (*Dr. Sigmond*), up to the most perfect and complex of animal existence, as *man*,—placed, as he is, at the summit of terrestial objects, by the excellence of his mind, and the combination of the common properties of matter, of those of vegetables, and of those of brutes, with those peculiar to himself (*Dr. Elliotson*); and where Infinite Power, in its wise beneficence, has assigned a period to the vast work of creation, as suited to the physical circumstances of our globe in its existing condition.

In this beautiful law of progressive development, there is manifested marked and incontrovertible evidence of a *gradation*; each successive order of living creatures, commencing at the lowest, presenting more or less distinct modifications of organisation, and of modes of organic or vital action, by which it is especially distinguished from that of its immediate predecessor in the scale. But does this gradation, founded as it is in nature, deserve the epithet regular or insensible? Philosophers are considerably divided in opinion on this question, but facts, drawn from nature, would seem to wholly overturn the doctrine of Addison, Locke, Dugald Stewart, &c., respecting the regularity and evenness of this gradation, and go to indicate that it is far from being "regular or insensible."

If, as is ingeniously asserted, "we have reason to believe that life never originates, but began at the creation, and is communicated to assimilated matter, and propagated from parent to offspring,"—(*Dr. Elliotson*) there is assuredly equally good reason for inferring that organic matter never originates at the period of impregnation, but commenced, like life, from the beginning, and is transmitted, as it, from parent to progeny, from generation to generation. For, if the assertion of Dr. Elliotson respecting life, be founded in fact, and there are the best grounds for believing that it is so, that which refers to assimilated matter must necessarily be equally so; for life is seen in organised bodies only, and it is in living

bodies only that organisation is seen."—(*Beclard*).

There are, however, some even of our first physiologists who distinctly deny the universality of this principle of connection and mutual dependance between these, and maintain that the former is not quite peculiar to organised matter, because capable of being possessed by matter in a fluid state. But this is an objection of terms merely,—a refinement in reasoning which runs, I think, fruitlessly counter to a great and pretty widely admitted general principle in physiology.

It may here be inquired are the fluids, which are confessedly vital, as those which are to become the future embryo, and that so styled "queen of fluids," the blood, devoid of all those characteristics essential to organised matter? And, if not so, what are we, then, to consider as their distinctive character? M. Beclard, whose splendid genius shed a rare lustre on most questions of intricacy in physiology, states, as his matured conviction, that the grand distinguishing feature of organised matter consists much more in the circumstance of its *arrangement*, than in any peculiarity or essential difference in its *nature*.—(*Anatomie Générale*.) Mr. Hunter, too, in reference to the blood, has the following expression, which fairly applies to the other vital fluids. "Blood is not simply fluid animal matter, it is animal matter particularly arranged, for it differs in every respect from the fluid animal matter produced by art."—(*Op. Cit.*) While, remarks Dr. Bostock, "in its most extensive acceptation, it (organisation) may be regarded as nearly synonymous with the word arrangement."—(*Elements of Physiology*.) Practical observation, also, of the vital fluids, fully countenances the fact of a law of arrangement and union of their organic molecules.

True it is that this organic arrangement is not, by any means, to be considered as synonymous with organisation, whether of the physical or physiological kind, any more than the life of a vegetable seed or an ovum, is that of the full-grown plant or animal; but it is the initiatory of that which, by a series of changes and complications, eventuates in the formation of certain structures and organs, performing special phenomena and particular functions, which, in their turn, minister to the preservation of the former. Life, then, in what might not inaptly be called its *latent* condition, or when devoid of what Mr. Hunter calls "the *power* of action," bears identically the same intimate connection and relationship to definitely arranged fluid matter, as this, in its most complex state, does to the so-called physiological organisation. The former, in fact, cannot be dissociated from the latter, during any period of its limited physical existence, any more than gravitation, or any other property of matter can, by possibility, be separated from, and exist independently of that matter itself.

The important question here occurs, is organisation the *cause* or the *effect* of the vital principle? This has long been a vigorously contested question in physiology, without the almost equally respectable advocates of the opposite doctrine having as yet come to any definitive arrangement respecting it; but the fact is, and it has been the chief object of this paper all along to enforce its correctness, that no priority of existence can, in the nature of things, be assigned to either the one or the other; both originate, or rather have originated, coexist, and are annihilated together. More of this, however, hereafter.

Lisburn, June, 1838.

TUMOUR IMPEDING DELIVERY.

To the Editor of THE LANCET.

SIR:—Perhaps you will have the goodness to give the publicity to the following case, which lately came under my observation, and which may not be altogether uninteresting to the medical readers of your periodical. I am, Sir, yours obediently,

J. L. I'ON.

Lower Marsh, Lambeth,
July 10, 1838.

I was summoned to attend Mrs. S. in labour with her fourth child, at 12 o'clock, A.M., April 29th, 1837. On instituting an examination per vaginam, I discovered that the cavity of the pelvis was considerably contracted in its antero-posterior diameter, by what I then considered to be a projection of the promontory of the sacrum; the os uteri was too high to admit of my ascertaining the character of the presentation. In three hours after I found that the labour had made considerable progress; the os uteri was dilated to about two-thirds, and the right hand was presenting in front of the vertex. I now discovered that the bony structure of the pelvis was not implicated in the production of the deformity, but that a firm elastic tumour projected from the promontory. Having ascertained this, I determined on altering the position of the hand, and allowing the vertex to enter the brim in the first position, hoping that the natural uterine efforts might prove sufficient to overcome the resistance. The labour, as might have been anticipated, was of a protracted character, and was terminated by artificial means at seven o'clock in the morning of the 30th. The fœtus was turned and brought down by the feet; the secundines were soon expelled, and with the exception of consequent exhaustion, the patient felt remarkably well.

For twelve hours everything went on comfortably, when peritoneal inflammation set in; this was combatted by the usual antiphlogistic treatment, and its employment proved ultimately successful. From the beginning of June, to the 27th of May, 1838, I lost sight of the history of the case, as the medical gentleman who had attended the patient in her former accouchments was summoned to see her; at this latter period my assistance was required to relieve an urgent symptom, retention of urine. I was then struck with the altered condition of my patient, as well as the remarkable development of the original disease; the tumour now occupied the whole of the pelvic cavity, and ascended into the abdomen as high as the umbilical region; a little to the right side of the umbilicus a very hard tumour about the size of an hen's egg was discovered, which appeared to be connected with the diseased mass in the abdomen, contributing not a little to mystify the character of the affection. The obscurity of the case, together with the attenuated condition of the patient, induced me to abandon any idea of the employment of curative measures, and I continued to administer palliatives only till the 23rd of June, when death released my patient from her sufferings.

Sectio Cadaveris, 22 hours after Death.

The parietes of the abdomen were remarkably attenuated, and appeared irregularly distended; beneath and a little to the right of the umbilicus, there was a small projecting tumour about the size of a common hen's egg. On reflecting back the integuments, this tumour was discovered to be the uterus, of its usual unimpregnated size; its substance very firm, of a peculiar pale colour, its cavity much diminished, and the vagina, in consequence of its displacement, lengthened to about twelve inches. The broad ligaments and fallopian tubes were much thickened and very vascular. The bladder, occupying the space between this and the symphysis pubis, was flattened across the abdomen; its structure at the fundus unnaturally dense, and adherent posteriorly throughout to the anterior part of the tumour; the ureters were much elongated, enlarged in their calibre, adherent to, and, indeed, imbedded in the investing substance itself of the tumour.

The intestines were healthy except the rectum and sigmoid flexure of the colon, which were in a state of hyperæmia, and adherent to the left side of the tumour. The liver, with the rest of the abdominal viscera, was apparently free from disease.

Before the tumour was dissected from its attachments, a trocar was introduced into it per vaginam, in imitation of an operation which was proposed, and which probably would have been performed if the patient had longer survived; a gallon or more of pus was evacuated, of a very green hue, but not very fœtid; a tedious dissection was essential to free the diseased mass from its posterior and lateral adhesions, which were remarkably extensive, and were as follows:—

It was attached to the lumbar vertebræ by very thick adhesions, to the blood-vessels and nerves, to the sigmoid flexure and rectum by cellular membranous adhesions; to the whole internal surface of the pelvic cavity, particularly on the right side, by adhesions almost cartilaginous, especially above, or over the sacro-sciatic notch, at which place it appears the tumour once pointed, and its contents were discharged by puncture. The *vis medicatrix*, however, had firmly closed this canal, and also imbedded the wall of the tumour there by firm adhesions.

The lumbar vertebræ in contact with the tumour were quite sound; but pressure of the tumour on the sacrum had caused abrasion of its periosteum and incipient caries of two points of that bone; the walls of the cyst, however, being entire at these points, prove that this osseous disease was not the origin of the tumour, but the usual consequence of long continued pressure.

On opening the tumour, which was taken out entire from its attachments, having the uterus, bladder, and vagina still imbedded in it anteriorly, it was found to be a large bag, thick and firm posteriorly and inferiorly, where the greatest resistance was made to its development, and thinner on the anterior wall, where the soft and yielding abdominal parietes offered slighter opposition to its expansion, not communicating with any organ by its cavity, unless as was supposed, ulceration had formed a communication between it and the bladder, as a considerable quantity of green pus escaped from that organ for several days prior to the death of the patient, but the establishment of this fact was omitted in the investigation, and remains therefore hypothetical; the interior of the sac was divided by numerous septa, evidently the walls of suppurating cysts, the internal membrane was very vascular, rugous, and coated with grumous pus.

It is still doubtful what was the origin of disease, but it is probable that at its commencement its contents were dissimilar from those of a later period; the extirpation of such a mass with its extensive connections, could not have been contemplated for a moment, and in all probability if the contents of the sac had been evacuated at the latter stage of the complaint, it would not have enabled nature to obliterate the disease.

EXCISION OF THE RIBS.

The two following cases possess great interest, not only from their rarity, but also from the severity of the operation, and the importance of the parts involved in the disease. Both operations have been performed by Dr. Warren during the last fourteen months. One of the patients has long since recovered, and the other is now in a state of convalescence.

The first case in which this operation was performed, was for a caries of the ribs. The patient was a gentleman of this city, 40 years of age, a patient of Dr. Bigelow. In the early part of his life he was subject to severe attacks of asthma; this he has been free from the last twelve years, during which time he has enjoyed good health, until the summer of 1834, when he had the typhus fever. On his recovery, after an illness of six weeks, he was troubled with a severe pain in the right side, in the region of the angle of the sixth and seventh ribs. A small tumour shortly made its appearance at this point, which, after having remained stationary for some months, finally opened and discharged a quantity of sanious pus. In the spring of 1835, Dr. Warren was consulted on account of the fistulous cavity which had remained since the opening of the abscess. Upon examination, a small aperture was discovered on the side of the chest, large enough to admit a common sized probe, and situated over the point where the sixth and seventh ribs are joined to their cartilages. Upon passing a probe into this aperture, it penetrated rather more than an inch in a direction downwards, and backwards, where it was resisted by a firm, but not osseous substance. This examination gave great pain, the parts being extremely sensitive. During the following winter, the pains about the ribs increased, the respiration began to be more or less affected, and the patient was occasionally troubled with hiccough, which seemed to indicate some connection of the diaphragm with the affected part.

Finding himself prevented from attending to his business, gradually losing strength, and, added to this, much suffering attending the disease, he finally determined to submit himself to an operation.

The state of the patient a few days previous to the operation, was as follows. He complains of great weakness and inability to move about; his digestion is not good; he has a constant pain in the region of the disease, that is at the point where the sixth and seventh ribs are joined to their cartilages. Here there is a large, hard, immoveable tumour, having on its surface a fistulous opening, with indurated edges. On passing a probe into this aperture, the depth of the cavity seems to have greatly increased since the examination made in the preceding spring; as much apparently from the deposition of a new substance, external to the ribs, as from an extension of the disease inwards, towards the plura; the probe encounters at the extremity of this cavity, first what appeared to be the cartilage, and further on, the bony part of the rib, evidently in a carious state.

The operation was performed on the 21st of January, in presence of a number of the medical profession of Boston. The patient was placed on a table, in a horizontal position. An incision four inches in length, was made in an oblique direction, over the sixth rib, joined by two incisions at either extremity of the first, so as by this means to form two quadrangular flaps.

The integuments were now dissected up, a matter of some difficulty, from their very strong adhesions to the parts below, and a firm cartilaginous substance exposed, forming a large tumour, destroying the natural appearance of the parts, and rendering it difficult to determine in which direction the diseased ribs and cartilages lay. After much time and patience, this substance was carefully removed, partly by shaving it off with the scalpel, and by occasionally removing portions of it with the cutting forceps, and the diseased parts at length exposed. Both the sixth and seventh ribs were found to be carious, their cartilages also being involved. The ribs were now carefully isolated from the surrounding parts, a probe passed under them, and the pleura, which was much thickened, and a part of the diaphragm, separated from their internal surfaces. Three inches of the seventh rib, and its cartilage, with two inches of the sixth, were removed by the chain saw and cutting forceps. There was very little hæmorrhage, and no appearance of bleeding from the intercostal arteries, which undoubtedly had become obliterated in the course of the disease.

The external wound, which had been somewhat enlarged in the course of the operation, was brought together by two or three points of suture, and by adhesive straps. Although the operation lasted a long time, and some parts of it were exceedingly painful, it was borne with great fortitude. The patient did not seem greatly exhausted.

On the second day after the operation, he had a severe pleuritic attack. This yielded to a copious bleeding, and in the course of two weeks he was able to walk about his chamber. From exerting himself too much, he was attacked with an erythematous affection between the wound and os ilii. This terminated in a partial suppuration. From the consequences of this attack he very slowly recovered. The following summer he went into the country, still suffering occasionally with some pain about the ribs. During his residence in the country, his

health gradually improved; and on his return to town the wound had entirely healed, and he is now in the full enjoyment of health.

One of the greatest difficulties in the operation was the removal of the cartilaginous formation which covered the ribs, and destroyed all the anatomical signs which were necessary for prosecuting the operation with anything like facility. This occupied much time, and the parts, contrary to what would naturally be supposed, were endowed with an excessive degree of sensibility. A portion of the diaphragm and pleura was exposed by the operation. The latter, during the slow inflammation which had been going on, had become greatly thickened; if this had not been the case, it would have been very difficult to have separated the pleura, without cutting into the cavity of the chest.

The other operation in which excision of a portion of the ribs was practised, was in a case of osteo-sarcoma—performed by Dr. Warren in the course of the last month. The patient was a stout, healthy person, a surveyor, from Upper Canada. Six years since, and without any previous injury, that he was aware of, a small, hard tumour appeared over the angle of the ninth or tenth rib. From that time to the present, it has gradually increased in size—having, however, daily, less of that bony hardness, which characterised it at first.

It was of a circular form, about six inches in diameter, and having an elevation above the ribs of between two and three inches. Its situation was on the lower part of the chest, covering a portion of the seventh, eighth, ninth and tenth ribs—to all of which it appeared attached, but more firmly to the ninth, which was most affected by its movements. The skin covering the tumour was perfectly natural, both in colour and consistence, and the patient complained of no inconvenience or suffering from the disease.

The operation was performed on the 27th of March, 1837, in the following manner. The patient was placed on a table, a little inclined to the right, with a pillow under the chest, so as to cause a projection of the left side of the thorax.

The operation was commenced by a longitudinal incision, about five inches in length, directly over the tumour. This was joined by another transverse incision, at right angles with its central part—the two incisions being well represented by the letter T. The flap, thus formed, being dissected up, the insertions of the external oblique were exposed, and dissected off, not without some difficulty, however, on account of its strong contractions. The latissimus dorsi was now discovered passing over the outer edge of the tumour, and the same, or in fact more trouble was experienced in dividing this muscle, than the preceding; the dissection of it was excessively painful to the patient, and was followed by some hæmorrhage. The tumour being at length perfectly exposed, was found to originate from the ninth rib, but was strongly adherent to the seventh, eighth and tenth. A knife was now carefully insinuated under the tumour, and its adhesions to the ribs dissected off, great care being taken not to cut through the intercostal muscle and penetrate the chest. As the attachment of the tumour to the ninth rib was not by its whole base, it was thought that more of the rib might be saved by first detaching the tumour, and afterwards cutting out the rib, than by removing both the tumour and rib together. It was therefore cut off from the rib at about an inch distance from its cartilage, and the morbid origin of the tumour exposed.

The intercostals were now cut through, the diaphragm carefully separated from the rib and pleura, and a director passed under at the points where the rib was to be divided. The bone was next cut through with the cutting forceps, and about two inches in length of it removed, with a portion of its cartilage. The diaphragm immediately rose up, forming a hernia between the ribs. The hæmorrhage was not great—most of it being from the divided muscle. No artery bled sufficiently to require being secured by ligature. The wound was brought together by sutures, and adhesive plasters. The patient was very little exhausted by the operation. A considerable degree of febrile excitement followed, requiring the employment of copious bleeding.

The wound has united nearly throughout by the first intention, and the patient is rapidly gaining strength, without the occurrence of any bad symptoms.

In this case, unlike the preceding, very little thickening of the parts lying under the ribs had taken place. This rendered the difficulty and danger much greater, in separating the pleura and diaphragm from their adhesions to the ribs, which, however, was finally accomplished without penetrating the chest.

Both of these operations sufficiently demonstrate that the excision of the ribs, with sufficient precautions, may be practised with comparative safety. — *Boston Medical and Surgical Journal*, April 28th, 1837.

Imitation of Anatomical Specimens.—MM. Thibet and Rameana have invented a composition which may be moulded with much greater facility than plaster, and which perfectly represents the anatomical subjects which require to be imitated; once hardened, it resists pressure, damp, and heat equal to boiling water. Each part is painted in oil, of the proper colors, and then varnished, so that it may be washed without injury.

Statistical Report of the Sickness, Mortality, and Invaliding among the Troops in the West Indies, prepared from the Records of the Army Medical Department and War Office Returns. 1838.

(Continued from page 579.)

The writers go on to investigate the diseases which prevailed in the command. This head of inquiry is exceedingly interesting. We shall give the results for the whole command at length, our limits not allowing us to enter into the details of each island separately. It will be observed, that in these tables a certain small proportion of the deaths is unaccounted for, the annual mortality being stated at .078, while, according to the corrected Returns, it was .0935.

TABLE showing the principal Diseases among White Troops in the Windward and Leeward Command.

	Admissions.		Deaths.	
	Total among whole Force in 20 Years.	Annual Ratio per 1000 of Mean Strength.	Total among whole Force in 20 Years.	Annual Ratio per 1000 of Mean Strength.
Fevers	62,163	717	3195	36.9
Eruptive Fevers	13	2-10ths	1	—
Diseases of the Lungs	9,975	115	906	10.4
— of the Liver	1,946	22	161	1.8
— of the Stomach and Bowels	36,474	421	1795	20.7
— of the Brain	2,447	28	312	3.7
Dropsies	659	7¾	180	2.1
Rheumatic Affections	4,202	49	17	
Venereal	3,043	35	6	
Abscesses and Ulcers	17,708	204	18	
Wounds and Injuries	11,149	129	60	
Punished	4,327	50	2	2.9
Diseases of the Eyes	7,686	89	4	
— of the Skin	559	6	1	
All other Diseases	2,584	30	145	
Total	164,935	1,903	6803	78.5

These results we shall now proceed to illustrate by a few remarks in regard to the principal classes of diseases contained in the above table.

FEVERS.

Under this head are comprised in the preceding table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Quotidian Intermittent Fevers*	24,607	149	1 in 165
Tertian	1,973	11	1 in 179
Quartan	133	1	1 in 133
Remittent	17,799	1,966	1 in 9
Common Continued	16,821	726	1 in 23
Yellow Fever (Icterodes)	774	331	1 in 2¼
Typhus	48	11	1 in 4¼
Synochus	8	.....	0 in 8
Total	62,163	3,195	1 in 20
Annual Ratio per 1000 Mean Strength	717	36.9	—

* A considerable proportion of the fevers classed as quotidian may probably have been tertian or quartan, as the Returns are not always very specific on this head.

"This class of diseases is the principal source of sickness and mortality in this command, as it comprises considerably more than a third of all admissions, and about a half of all the deaths. Compared with the same diseases among troops in this country, the admissions are ten times, and the deaths twenty-five times as numerous.

"About two-fifths of the above admissions are from intermittent fever, which seldom proves fatal to those attacked; but this disease is principally confined to the low, marshy settlements of Demerara, Berbice, where it has been a very great source of inefficiency, particularly since 1830, the number attacked in the course of the year having been equal to the whole force in the colony. Intermittents are also very common in Trinidad, owing to the vicinity of the barracks to the marshes; but in the other stations they are comparatively rare and in some almost unknown.

"A very arbitrary distinction seems to prevail in regard to the insertion of cases under the head of yellow fever (*febris icteroides*), only one having been recorded in the Medical Returns since 1827; but as different opinions are entertained by medical officers in regard to the classification of fevers, that which has been entered at one time as yellow fever may probably have been denominated remittent at another. The cases reported as *icteroides* must have been exceedingly fatal, as about one-half died of all attacked; whereas of those attacked by remittent fever, which may perhaps be viewed as a less aggravated form of the same disease, a ninth part only died. These maliguant fevers have of late years been principally confined to Tobago, St. Lucia, Dominica, and Guiana. Some very severe cases appeared lately also at St. Kitt's and Tortola.

"Fevers of the common continued type are about equally prevalent and fatal throughout all the stations in the command, except at St. Lucia and St. Kitt's, where they seem to have been particularly virulent in their character. The proportion who die out of those attacked by that description of fever throughout this command is 1 in 23, whereas among troops in the United Kingdom it is but 1 in 78, so that it must be of a much more severe character than in this country.

"Eruptive fevers have been so exceedingly rare in the Windward and Leeward Command, that only 13 have been attacked, and but 1 died among the whole force of white troops in the space of 20 years.

DISEASES OF THE LUNGS.

Under this head are comprised in the preceding table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Lungs	1,941	112	1 in 17
Pleurisy	34	1	1 in 34
Spitting of Blood	303	34	1 in 9
Consumption	1,023	580	1 in 2
Acute Catarrh	5,108	49	1 in 104
Chronic Catarrh	1,409	127	1 in 11
Asthma	92	2	1 in 46
Difficulty of Breathing	63	1	1 in 63
Hooping Cough	2	—	—
Total	9,975	906	1 in 11
Annual Ratio per 1000 Mean Strength	115	10.4	—

"Though the proportion of admissions by this class of diseases is lower than among troops in the United Kingdom, in the proportion of 115 to 148, the ratio of mortality is much higher, as nearly 10¼ per thousand of the strength have been cut off annually; whereas in Britain the deaths from the same class of diseases do not average, at the utmost, more than 8½ per thousand. This arises from the greater prevalence of consumption, for out of an aggregate strength of 86,661, serving in the Windward and Leeward Command, not fewer than 1023 were attacked by that fatal disease, being 12 per thousand annually, while out of an aggregate strength of 44,611 dragoon guards and dragoons serving in Great Britain, only 286 were attacked, being about 5½ per thousand.

"Not only is consumption productive of great mortality in this command, but inflammation of the lungs and chronic catarrh are nearly twice as prevalent and as fatal as among troops in Britain, thus showing how little effect a mere increase of temperature has in modifying these diseases. The only disease of this class from which the troops in this command appear for some years to

have enjoyed any exemption is acute catarrh; but there has been a remarkable increase in the cases since 1823 and 1824, and of late years at least four times as many have been attacked by it as previous to that period.

DISEASES OF THE LIVER.

Under this head are comprised in the preceding table—

——	Admitted.	Died.	Proportion of Deaths to Admissions.
Acute Inflammation of the Liver....	903	79	1 in 11
Chronic	902	76	1 in 12
Jaundice.....	141	6	1 in 23
Total.....	1,946	161	1 in 12
Annual Ratio per 1000 Mean Strength	22	1.8	——

"Though this class of diseases is by no means so common as in the tropical regions of the Eastern hemisphere, it is nearly thrice as prevalent as among troops in the United Kingdom, and occasions about five times as high a ratio of mortality. It varies materially, both in prevalence and severity, at different stations. At Grenada, for instance, it will be found to have occasioned three times as much mortality as at most of the other islands, and without any assignable cause.

DISEASES OF THE STOMACH AND BOWELS.

Under this head are comprised in the preceding table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Abdominal Inflammation	25	7	1 in 3½
Inflammation of the Stomach	161	26	1 in 6
—— Bowels.....	254	38	1 in 7
Vomiting of Blood.....	34	2	1 in 17
Acute Dysentery	14,076	608	1 in 23
Chronic Dysentery	3,767	759	1 in 5
Indigestion.....	1,142	27	1 in 42
Colic	3,286	15	1 in 219
Obstipation	727	3	1 in 242
Cholera	1,173	24	1 in 49
Diarrhœa	11,828	285	1 in 42
Cancer of Stomach.....	1	1	1 in 1
Total.....	36,474	1,795	1 in 20¼
Annual Ratio per 1000 of Mean Strength	421	20.7	——

"This class of diseases is a most fertile source of sickness and mortality among the white troops, the proportion attacked annually amounting to 421 per thousand; whereas among troops in Britain it is only about 95 per thousand of the strength, and the diseases are of so mild a character that not above one death is caused by them in every two thousand of the strength. In this command they occasion a mortality of about 21 per thousand, being upwards of 40 times as high a ratio as among troops at home.

"The principal source of this mortality is chronic dysentery, of which one case in five proves fatal, and unfortunately a very great proportion of the cases of acute dysentery and diarrhœa, however slight in the commencement, by frequent recurrence ultimately terminate in this form of the disease. Every time the patient is admitted into hospital it assumes a more intense and unmanageable character, till, after several partial recoveries and relapses, he ultimately sinks under it.

"Inflammation of the stomach and bowels, and indeed every disease of this class, prove also extremely severe in character, and fatal in their effects. There is, however, a very considerable difference in their influence in one island or settlement as compared with another, which will be hereafter more fully illustrated, when we come to investigate the mortality which has occurred in each separately.

"There have been no cases of epidemic cholera among the troops in this command during the period over which our Report extends.

DISEASES OF THE BRAIN.

Under this class are comprised in the preceding table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Brain	108	8	1 in 13½
Headach	127	1	1 in 127
Stroke of the Sun	6	.....	0 in 6
Water in the Head	3	2	1 in 1½
Apoplexy	159	83	1 in 2
Paralysis	106	10	1 in 10½
Epilepsy	325	22	1 in 15
Fatuity	83	5	1 in 16½
Madness	104	6	1 in 17½
Brain Fever of Drunkards	1,426	175	1 in 8
Total	2,447	312	1 in 8
Annual Ratio per 1000 of Mean Strength	28	3.7	——

"It would at first sight appear that this class of diseases is exceedingly prevalent and fatal, the admissions and deaths being about four times as high as among the same number of troops in Great Britain; but considerably more than half of them have arisen from *delirium tremens*, the direct consequence of intemperance; deducting these, the admissions have been only about 12, and the deaths 1·6 tenths per 1000, or about double what occurs from the same cause in Britain, and many even of these no doubt originated in drunkenness, though not so reported. This shows that the influence of a high temperature in increasing the prevalence or mortality of this class of diseases is by no means very great.

DROPSIES.

Under this head are comprised in the preceding table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Subcutaneous Dropsy	448	93	1 in 4⅘
Abdominal Dropsy	191	77	1 in 2½
Water in the Chest	20	10	1 in 2
Total	659	180	1 in 3⅔
Annual Ratio per 1000 of Mean Strength	7.8	2.1	——

"The proportions of admissions and deaths by this class of diseases is very high compared with that which occurs among troops at home, being nearly as eight to one. This may, to a certain extent, be attributed to the greater prevalence of fever in this command, as most of the cases of dropsy are stated to have occurred in men whose constitution have been broken by repeated attacks of that disease.

"The greater number of the deaths reported under this class in 1817 and 1818 occurred in Trinidad from a disease peculiar to that island, termed Trinidad cachexy, and which perhaps should here have been distinguished from the ordinary class of dropsies. Exclusive of these the deaths during the other 18 years have averaged about 1·6 tenths and the admissions 5·8 tenths per 1000 annually.

"The other classes of diseases offer little worthy of remark; the mortality is very low, and does not appear to require the same minute investigation as the preceding. Referring, therefore, to Abstract No. 1, of Appendix for the particular diseases, we shall here merely contrast the ratio of admissions annually among 1000 troops in this command, with what occurs among the same number in Great Britain.

	Admissions per 1,000 of the Force Annually.	
	In Windward and Leeward Command.	In Great Britain.
From Rheumatic Affections.....	49	50
Venereal Affections	35	181
Abscesses and Ulcers	204	133
Wounds and Injuries.....	129	126
Diseases of the Eyes.....	89	19
—— Skin.....	6	29
Punished	50	8

"The most remarkable feature in this Table is the rarity of admissions under the head of venereal diseases in this command, which, as will be seen by the general abstract, applies to syphilis and ulcers on the genitals of doubtful origin, as well as gonorrhœa, thus indicating a connection between these three species of venereal affections; and it is particularly striking, that though ulcers on all the other parts of the body are nearly thrice as numerous as in Britain, those on the genitals are eight times less so. That the rarity of this class of diseases does not arise from the increased temperature merely is sufficiently evinced by the fact, that in the East Indies and Mauritius the ratio of venereal cases is greater even than at home. That it does not arise from any peculiarity in the constitution of the negro females, with whom the soldiers are generally in connection, is also proved by the troops being so liable to it in the Mauritius, where the lower class of the female population are of this race; and it cannot be owing to any precautionary measures for preventing the propagation of the disease, because there are no police regulations on this subject in the command. The same feature will hereafter be shown to exist throughout the whole of the West India settlements; and as those who know the habits of the soldiers there, would never think of referring this exemption to any superiority in moral conduct, it must be attributable, in a great measure, to the climate being unfavourable to the existence and propagation of that disease. The same peculiarity has been remarked in some of the old medical returns, nearly 50 years ago.

"The proportion corporally punished in the Windward and Leeward command has amounted, on the average of the last 20 years, to 50 per 1000 annually. This is six times as high as in this kingdom; but the latter ratio has been taken on the average of the last seven years, during which corporal punishment has been very much restricted; while the former extends over 20 years, during the first part of which it was very common. The following Table will show that it has gradually decreased in that command, till the ratio is now as low as in this kingdom:—

	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828
Number corporally punished.....	692	647	344	204	230	251	255	350	167	120	102	154
Ratio per 1000 of strength corporally punished.....	135	154	91	56	63	76	78	84	37	26	24	37

(*Continued.*)	1829	1830	1831	1832	1833	1834	1835	1836	Total.	Average.
Number corporally punished.....	121	173	131	111	69	75	89	42	4,327	216¼
Ratio per 1000 of strength corporally punished	29	38	31	26	14	14	16	8	.....	50

"On referring to the general abstract there will be observed a remarkable prevalence of ulcers in this command; not fewer than 161 per 1000 of the strength are annually admitted on that account, and many are exceedingly difficult of cure, in some stations scarcely yielding to any treatment. It has been remarked by the most careful observers in the West Indies, that these local affections seem to depend on the same remote cause as fever, as persons suffering from them are seldom attacked by that disease.

"Diseases of the eyes are a source of considerable inefficiency in this command, being nearly five times as common as among troops at home; but this is the case in a greater or less degree in all warm climates. Diseases of the skin are exceedingly rare, being scarcely one-fifth part as common as in this country."

JOYCE'S PATENT HEATING APPARATUS.

Having lately published a lecture of Professor Everitt, in which an unfavourable opinion was declared of Joyce's heating apparatus, we think it but just to give equal publicity to the following Report of Professor Brande and Mr. J. T. Cooper, wherein the merits of the apparatus are examined and detailed in an impartial manner. Mr. Cooper says:—

I find that one of Joyce's stoves, the internal cylinder of which is six inches in diameter and fifteen inches high, with an inverted cone, having twelves holes, each a quarter of an inch in diameter, burns three ounces of the prepared fuel per hour, when the regulating apertures at the top are quite open.

In all cases the combustion proceeds without producing any of the unpleasant odour that occurs when charcoal of the ordinary kind is burnt in a similar manner.

In one instance, the stove was kindled, and at 11 P.M. was placed in a room,† the temperature of which was 62 deg. Fahr; the room was then closed, and not entered till ten o'clock the following morning; I then remained in the room about an hour, the doors and windows being kept closed, and found that exactly thirty-six ounces avoirdupoise of the fuel had been consumed; and on testing the air taken from the upper, lower, and middle parts of the room, the greatest quantity of carbonic acid contained was three quarters per cent. The temperature had increased to 72½ degrees Fahr.

In another experiment, the stove was allowed to burn fifteen hours in the closed apartment, and at the end of that time, it had consumed forty-four ounces and a half of fuel; and the air of the room on being tested for carbonic acid, as before, was found to contain less than one per cent, and the temperature had increased 13 degrees.

These experiments have been made repeatedly, and always with the same results, excepting some slight differences in the increase of heat.

It can be demonstrated as follows, that each ounce of pure charcoal, when burnt, will produce a little less than two cubic feet of carbonic acid: for, one hundred cubical inches of carbonic acid is estimated to weigh 47 grains, and every 22 grains of carbonic acid is known to contain 6 grains of carbon; then as 22 is to 6, so is 47 to 12.82, which is the weight of the carbon contained in 100 cubical inches of carbonic acid; then if 100 cubical inches of carbonic acid contain 12.82 of carbon, 1728 cubical inches, or one cubic foot, will contain 221.53 grains of carbon: again, if 221.53 grains of carbon be contained in one cubic foot of carbonic acid, one ounce avoirdupoise, or 437.5 grains, will be contained in 1·97 cubic feet, which is so nearly two cubic feet, that, for my present purpose, it may be said that one ounce of pure charcoal will produce two cub c feet of carbonic acid.

If no change in the air of the apartment had occurred in the two cases before related, there should have been present in the first instance 72, and in the latter 89 cubic feet of carbonic acid, which would have made the per centage 3.6, and 4.45; whereas, in both cases, it was less than one per cent,

† This room was about 14 feet long, 12 high, and 13 wide; ever, precaution was used to make it air tight while the experiments were being performed.

thereby showing, that whatever care may be bestowed to render a room air tight, it is not possible to accomplish it so completely as to prevent the escape of the warm air, through minute pores and crevices from the upper parts of the room, and the entrance of the cooler air at the bottom, for in no other way am I able to account for the difference observed in the quantity of carbonic acid produced, and that detected in the air of the room.

An imperial pint of good sperm oil will burn, in a well trimmed Argand's lamp of the ordinary size, about twelve hours; but I find by my analysis, that a pint of such oil contains 6333 grains of carbon, or nearly 14.5 ounces avoirdupois, making the quantity of carbon consumed in one hour, a trifle more than 1.2 ounce; which, as I have shown above, is equivalent to the production of 2.4 cubic feet of carbonic acid. It will follow from this, that two such table lamps burning together will produce nearly as much carbonic acid in the same time, as one of Joyce's stoves, such as I have used in my experiments, and which I have before stated to be adapted for warming an apartment, containing about 2000 cubic feet of air.

A moulded tallow candle (long four) burns on the average of some hours, 122 grains of tallow per hour; but in 122 grains of tallow there are about 95 grains of carbon, consequently, about 14 such candles burning together would produce as much carbonic acid in the same time as the Joyce's stove to which I have before alluded.

A spermaceti candle of the same size will burn in one hour 129 grains of spermaceti; but in 129 grains of spermaceti there are about 100 grains of carbon, consequently, about thirteen such candles burning together will produce in the same time as much carbonic acid as the Joyce's stove.

A stearine candle of the same size will burn in an hour 156 grains of that substance; but in 156 grains of stearine, there are about 121 grains of carbon, consequently, eleven of such candles burning together will produce as much carbonic acid in the same time, as the Joyce's stove.

Another stearine candle from a different maker with a larger wick, but of the same weight (long four), will burn 175 grains in an hour; but in 175 grains of stearine there are about 136 grains of carbon, consequently, between nine and ten of such candles burning together, will produce as much carbonic acid, in the same time, as the Joyce's stove.

Coal gas of average quality, I have found to produce by burning 0.6 of its bulk of carbonic acid; an ordinary coal gas burner on the Argand's principle, having fifteen holes, will consume 5 cubic feet of gas per hour; six-tenths of five are three, therefore, three cubic feet of carbonic acid would result from one such light; consequently, two such gas lights burning together, will produce exactly the same quantity of carbonic acid as the Joyce's stove.

But, independently of the formation of carbonic acid, all the common combustibles last named, contain such excess of hydrogen as tends to the further deterioration of the air, by the abstraction of an additional portion of its oxygen, so as to leave an excess of residuary nitrogen, which, of itself, is nearly as deleterious as carbonic acid; the air, therefore, which issues from the glasses of Argand, oil, or gas lamps, or from the flames of candles, will, if received into a proper vessel, by which the entire products of combustion may be collected, prove equally, if not more, deleterious to animal life, than that which results from the combustion of an equivalent quantity of charcoal.

With a view to determine the amount of deterioration the air underwent in crowded assemblies, I obtained some air from a chapel in my neighbourhood, towards the close of the evening service, and, on examination in the ordinary way, it was found to contain a little more than one and a half per cent. of carbonic acid. In another instance, I collected some air from the gallery of a crowded theatre, at eleven o'clock in the evening, about four hours after the commencement of the performances, and this I have found to contain about three per cent. of carbonic acid.

The advantage which I conceive Joyce's stove to possess over the ordinary methods of burning charcoal for warming apartments, is the perfect control over the rate of combustion of the fuel; for while, in a common chafing dish or braisier, almost an unlimited quantity of charcoal may be consumed in a comparatively short space of time, and liberate very suddenly a large volume of carbonic acid, which might be prejudicial to health, if not absolutely dangerous; in these stoves, by their peculiar construction and arrangement of proper sized apertures, the fuel can be consumed only at a certain given rate; and if they be properly adjusted to the size of the apartment they are intended to heat, my experience leads me to believe that no injurious consequences can arise from their employment.

JOHN THOMAS COOPER.

82, Blackfriars-road, London,
14th June, 1838.

Having been present at the experiments made at Mr. Cooper's house, with a view of determining the degree of deterioration which the air suffers by the employment of Joyce's stoves in close rooms, and having examined, in conjunction with him, the composition of the atmosphere under such circumstances I can certify, that after burning for twelve hours in a room of the dimensions above

stated, less than one per cent. of carbonic acid was, in all cases, found in the air of the room; that such proportion of carbonic acid cannot be considered as deleterious, or in the least degree dangerous, in reference to respiration; that it falls short of the relative quantity of carbonic acid found in crowed and illuminated rooms, or in buildings in which many persons are congregated, such as churches, theatres, and assembly rooms, in which ventilation is generally imperfect, and in which, as far as my experience goes, the relative proportion of carbonic acid always considerably exceeds one per cent. I am therefore of opinion that the said stoves, which are so constructed as to consume only a limited quantity of pure charcoal in a given time, may be employed with perfect security, for all the purposes for which they have been proposed, and I consider the grounds of this opinion sufficiently detailed by the experiments above given.

WILLIAM THOMAS BRANDE.

London, 14th June, 1838.

UNIVERSITY COLLEGE HOSPITAL.

ANIMAL MAGNETISM.

SEVENTH REPORT OF EXPERIMENTS AND FACTS.

EACH week adds numerous facts to the number already accumulated respecting the two singular patients at this hospital, and few of them will fail to supply materials from whence at a future date to draw certain conclusions regarding the nervous systems which are under inquiry. In forming a sanguine expectation on this point it may not be unreasonable to hope that some light will, through the same medium, also be thrown on the nervous system in man generally, for though the present is but the first stage of a new inquiry, yet already has so much progress been made in it as to justify the impression that the unwearied perseverance of Dr. Elliotson, and those other gentlemen who are prosecuting the investigation, will by-and-by be rewarded with results that will take an important station in the records of physiology and ethical philosophy. As for the ridicule and imbecile denunciations of shallow observers, or of those who have not observed at all,—who even scorn to observe,*—it will not retard the investigation, we apprehend, one jot. Nothing can subdue, or long successfully combat, FACTS. But all these sneerers belong to the class of those who, as we last week intimated, will incur no risk for the sake of truth, which must, therefore, be content to fight its way without them.

July 16.—Some experiments were tried by Dr. Elliotson in the ward to-day which appeared to be worthy of separate inquiry. Jane O'Key was taken to the bedsides of several female patients, with various diseases, and directed to place a sovereign in the hand of each by turns, and retake it after the lapse of a few seconds. In each instance where the patient was considerably debilitated, from the disease, from depletion, and from a low diet, stupor did not follow her retaking of the metal, but in every case of local complaint, where the general health and strength were not affected, she was stupified.

The diseases (described in Latin on the cards overhead), and the results, were as follows:—

1. Acute rheumatism and pericarditis. The patient had been bled and was on low diet. *No effect.*
2. Paralysis. *No effect.*
3. Pulmonary consumption. *No effect.*
4. Disease of the heart and liver, and rheumatism. Patient very greatly reduced. Tried three times. *No effect.*
5. Cutaneous disease (prurigo, a little girl), otherwise in good health. *Stupefaction.*
6. Epilepsy. Otherwise in good health. *Stupefaction.*
7. Fever. (Synochus.) Early days of convalescence. *No effect.*
8. Secondary syphilis. (A girl.) Under the influence of mercury. *Stupefaction*, after a pause.
9. Acute rheumatism. Much depleted. *No effect.*
10. Utero-vaginal discharge. (Menorrhagia). A girl. Recently bled twice; on low diet. Discharge still. *No effect.*
11. Acute rheumatism. (A girl.) Just received. No treatment yet. *Stupefaction.*
12. Catalepsy, probably feigned; patient without food for seven weeks. *No effect.*
13. Fancy complaint; snake in the stomach. In good health. *Instant stupefaction.*
14. Chorea. (A girl.) Otherwise in good health. *Instant stupefaction.*

From these facts, and those which are to follow, it would appear that these girls afford a test of strength as well as metals.

On returning from the ward the following experiment was shown to prove that a magnetised object gradually parts with its force, by the lapse of time. A sovereign, held in the hand for a few seconds, was placed on the floor, and Jane O'Key, being in delirium, directed to pick it up. She stooped, and having raised it 3 inches was fixed in the bent position. By pointing to

* "We hold that every scientific man who regards his own character should *keep aloof* from them (the observation of the facts) and refrain from sanctioning by direct participation in their proceedings, a transaction (?) so likely to lead to mischievous consequences."—*Athenæum*, June 16.

her hand, the fingers relaxed and let fall the sovereign, and in half a minute she recovered, with the exclamation "God bless at my soul!"*

She was again told to pick up the sovereign, and was stupified when she had raised it about 8 inches.

She again stooped for it, and had raised it about 14 inches before stupefaction occurred.

On the fourth time, about 20 inches.

On the fifth, at a yard.

On the sixth, she was upright.

On the seventh, she was upright and in motion.

On the eighth, she had regained her volatility, and begun to dance.

On the ninth, she was in the act of dancing and singing, the sovereign in her hand, her arms aloft, and one foot in the air, when she was firmly fixed in that position, and so remained for about 6 seconds.

A tenth trial proved that the magnetic effect of the metal was wholly dissipated.

Eight sovereigns were laid, edge to edge, on the table. Her finger was placed on the 8th, and in 36 seconds after Dr. Elliotson had placed his own finger on the 1st, the influence had travelled to the 8th, and the girl was first stupified, and then fell asleep. On recovery she placed her finger respectively on the 8th, the 7th, the 6th, and the 5th. When at the 5th the influence was found not yet to have retreated from that piece, for she was slightly stupified. At the 4th, the stupor was longer; at the 3rd and the 2nd, respectively longer. At the 1st, which Dr. E. had touched, sleep, instead of stupor, occurred.

A repetition of this experiment was attended with the same results, excepting that when her attention was least excited by the objects around, the stupor was quicker; and when the first sovereign was touched by Dr. E. with a gold pencil case, instead of his finger, and the line was thus lengthened, the influence did not reach the 8th sovereign for 54 seconds.

When eight shillings were substituted for the gold, the stupefaction did not occur until 134 seconds had elapsed. On recovery, and touching each, from the 8th backwards, no effect ensued until a stupor of 4 seconds occurred at the 2nd.

To ascertain if the influence would travel downwards, eight sovereigns were piled, and Dr. E's finger was rested for a second or two on the top. The pile was then upset, and the girl's finger placed on that which had been the lowest piece. Instant stupor ensued, and afterwards on touching that which had been the top shilling, sleep immediately occurred.

Eight shillings were similarly piled and tried. The effects followed very slowly and were much more brief.

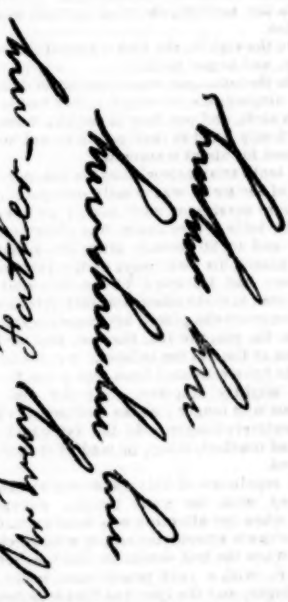
July 19. In consequence of some suggestions occurring yesterday, during experiments which we did not fully witness, several yards of gold chain were brought to the hospital, with a view to ascertain to what extent the magnetic or soporific fluid would travel. There were present as visitors to witness the experiments; Mr. Knatchbull (brother of Sir Edward, M. P.) Professor of Arabic in the Oxford University; Lord Borrington, Count Flahul, (French Embassy) Dr. Lardner, Mr. Bulteel, and several other gentlemen. The experiments demonstrated that when the patient, Elizabeth O'Key, held one end of a chain, and the experimenter (Dr. Elliotson, Dr. Lardner, or any other gentleman) the other, she would after the lapse of a minute, became stupified. When two or more chains were hooked together, the slightness of the connection interfered with the passage of the fluid along the whole line; for when she ran her hand along it she was immediately stupified on arriving at the chain held by the operator. Or if the operator advanced, and grasped the end of the chain which the girl was holding, stupor at once ensued. If a brass chain were twisted round the gold chain when she was affected, the fluid was arrested by it.

A long gold chain being placed twice round her neck, and the end held by the experimenter, a peculiar stupor ensued, with convulsions of the eyes, and a temporary derangement of vision, which made her, on looking about the room after recovery, inquire "Where on earth she had got to." The following singular effects were afterwards elicited. It had been found that if an intermediate part of the chain, while held by the experimenter, as it hung from the neck of the girl, was wound round a roll of paper, or the blade of a table-knife, just in proportion to the number of turns which the chain made round the paper or knife was the stupefaction of the girl increased or diminished. The paper or knife evidently interfered with the current of fluid passing to the girl. If much were wound round the knife the stupor nearly disappeared; if little, it increased, and the degree could be regulated so exactly that the intensity of the stupor could be measured in the following manner,—the phenomenon being observed now for the first time. If the chain were placed on her neck and in her hand when she happened to be singing, the magnetic influence gradually checked the voice. If the middle of the chain were then wrapped round a knife the stupor would lessen, and

* So invariably used on recovery from stupor that it is probably a test that stupor has existed; for, on some occasions the stupor may be so slight as to be doubtful if produced at all, as when the object has, after several touchings, expended nearly all its magnetic influence.

the girl resume the song at the line she was uttering when stopped. To unroll the chain would again arrest her voice in the most gradual manner, first diminishing its power, and then stopping the tune. The same effects would follow if she were speaking; but the experiment was carried to a more singular result. The operations of her *intellect* could be checked, while the vocal still proceeded, converting the girl into a living automaton, probably new, of its kind, in human history. While, for instance, her thoughts were occupied on the words and air of Byron's "Maid of Athens," the chain was unrolled, and when she had reached the line "My life, I love you," the stupor had increased, the usual statue-like aspect crept over the face, the voice had lowered, the limbs were fixed, the memory was gone, the faculty of fore-casting the thoughts had departed, and but one portion of capacity remained,—that of repeating again and again, perhaps twenty times, the line and music which had last issued from her lips, without pause, and in the proper time, until the experimenter stopped her voice by further unrolling the chain. After a minute's silence, on again rolling up the chain to the former point, she took up the same line, in the same key, and again kept repeating it; and on dissipating yet more of the stupor, by the same means, she proceeded with and finished the song; at last re-waking into the delirium. These effects were produced while the alterations in the chain were carefully made behind her. On another trial she was stopped in an old comic air at the line, "Whether his mother would let him or no," while the left hand, outstretched, with the chain in it, was dancing up and down, and the right toe was tapping the time on the floor; and with these words and actions she persevered for fifty repetitions, until the winding of the chain re-opened the faculties, when she finished the song.

The same control over the faculties was manifested in various other experiments, and on the 20th inst., during some further inquiries, the phenomenon took a direction which may be illustrated more fully by the graver. While some attempts were being made to clear up certain obscurities which had occurred in an experiment with the metals, on Elizabeth O'Key, she was allowed to take a pencil and note-book to occupy her attention by "writing a letter," and while scribbling "You are a very good way* mother my way dear; if you please you, you, you," a piece of gold was placed in her hand, when instead of continuing the sentence, she mechanically repeated the *you*, the stupefaction having deprived her of *thought* and sight, the mechanical action of the hand still continuing. Before awaking, a blank leaf was placed uppermost in the book, and on recovering her sight she evinced the greatest astonishment at the disappearance of the writing. She then began "another letter," and was stupified at the fourth word, and when the stupor was dissipated, the word *my* had been repeated, as in the following fac-simile, to eight repetitions. The paper was gently shifted as she wrote, or the repetitions would have been made upon each other.



When awoke she expressed surprise at the *my's*, vehemently denied that she had written them, and said somebody had been imitating her hand, and was astonished that her sister, who was looking on at the time, should expostulate with her for denying the palpable fact. Jane was also in the state of delirium, and as neither of them then understands either her own or her sister's condition, she was greatly vexed at hearing Elizabeth declare what she regarded to be so plain an untruth.

Such incidents explain, better than any description, the character and condition of these two physiological curiosities, so worthy as they are of being well understood.

It was found that when the same *slight* degree of stupefaction in which these phenomena occurred, was produced while she was employed in any action, the motion was repeated so long as the stupor lasted.

* The word "way" she continually interpolates in speaking. She attaches to it no meaning, but says that it is a particularly "pleasant" word.

For instance, she was once fixed in every part excepting the right forefinger, with which she was rubbing her chin, and the motion continued during the trance. At another time when smoothing her hair; at another when imitating the laughter of the spectators, whose risible faculties were excited beyond control by her grotesque mimicry. At another time, while pronouncing the word *you*, of which she kept prolonging the o-o-o-o-o-o-o until recovered from that state. At another time, when a magnetised sovereign wrapped in paper was given to her; while turning it round, flatwise, between her fingers, saying that it was wrapped up "very neatly indeed," she was caught in the remark, and kept repeating those words, and rotating the sovereign, until the influence evaporated. At another time, while whistling, she prolonged the last note indefinitely. An attempt was made when she was thus repeating a short sentence, to bring her to change it by impressing a new idea on her mind, through repeating in her ear a variation of the words; but in vain; not the slightest notice of it was taken. Hearing and sight, on these occasions, appeared to be totally arrested, and it may be presumed that she did not hear her own repetitions. She always denied that she had "made such a fool of herself" as, when awake again, she considered that she was charged with having been.

Following up the experiments with the metals, it was made as evident as the circumstances permitted, that gold and silver would both excite the magnetic fluid into action, and be converted into magnetic agents, in a manner with which neither copper, platina, iron, or "German silver," for instance, would compare. When Dr. Elliotson ran his finger across her hand so quickly as to produce no effect on Eliz. O'Key, an unmagnetised sovereign immediately afterwards pressed on her palm, at once stupified her. If pressed before the finger had crossed her hand, no effect ensued. A penny similarly used had no effect. A pencil-case composed chiefly of zinc and nickel (to imitate silver) produced no effect. A gold pencil instantly made her sleep. A silver one stupified her. (The hand was magnetised; the objects were not.) A "bad" half-crown was procured. She had a small hammer in her hand, and was abstractedly rapping the palm with it. The bad piece of money was placed in her hand while the hammer was up, and she continued the rapping while engaged by us in talking. Presently the piece was slipped out, and a good half-crown placed in its stead, under the hammer. In a few seconds she was stupified, while rapping and talking. The bad piece was again placed there, and no effect followed; and then removed, and again tried; and again; and then the silver piece; and then again that piece; and so on in variations, for a score of times, and in every instance the stupor ensued only when the silver piece was in her hand. Professor Wheatstone conducted this experiment with the writer.

An effect has repeatedly followed a particular manipulation, or action, in both girls, which occasionally has failed to follow the same process; and from this circumstance adverse conclusions have been instantly drawn respecting the whole range of experiments and phenomena, by persons who instead of being anxious for *the truth*, were only *anxious* that the patients should be *condemned as impostors*. The process of reasoning on which these conclusions have been pronounced, it must be confessed, does not indicate a very healthy condition of the mental faculties. Such experiments do not contradict any one fact. They only indicate another. For instance, after the experiments with the chains had been often repeated and long protracted, Elizabeth O'Key, who had previously, at that sitting, been susceptible to the usual processes for putting her into stupor and to sleep, could not be affected in any way by them. Even firm pressure on the inside of the under lip was useless; but the touching of the eyeball was instantly effective, that surface always appearing to be the most sensitive to the magnetic influence. That manœuvre now also only produced *sleep*. On former occasions we had always seen it followed by sleep and convulsions. Some little time after this, a mesmerised sovereign placed in her hand produced sleep.

It will be proper to mention a few other facts relating to these occasional anomalies in the phenomena, because they involve points of consideration which have never been even partially studied by the inefficient observers who, with so much courage and manliness, assail the moral character of the girls who are the objects of their enmity.

It was discovered by Dr. Elliotson, and at a sitting on the 16th inst., shown to several persons, that *slightly* mesmerised water would sometimes not affect her until a dose of *plain* water was afterwards drunk, when the power of the first would be instantly brought into action. Until this fact, relating to slightly mesmerised water was demonstrated by numerous experiments, it appeared that the announced rule that water could by mesmerism be made to produce stupor or sleep in the girls (the experiment was made on Jane O'Key), was founded in error.

It was found, by experiment, that the magnetic fluid could be imparted by the perspiration as well as by the breath. A sovereign might be mesmerised by holding the hand an inch above it. A warm hand placed on her own, would leave on it the magnetic influence, and the wiping of her hand after-

wards would remove it. Accordingly it was suggested to-day (the 16th) to ascertain whether, on any one first touching her hand with his own, she would become affected by stupor on taking an unmagnetised glass into that hand, the pressure of the glass apparently exciting the influence of the magnetic fluid. The trial proved the affirmative in fourteen instances. She took, successively, after her hand had been touched by Dr. Elliotson, nine wineglasses, and in each instance was stupified, and on again going through the series was again stupified by the first five. At the sixth the influence had evaporated, and the stupor was, in each experiment, of a shorter duration. It was also plainly shown that to point the finger at a glass, to pass the hand over it, to place one glass near another containing mesmerised water,—would all magnetise the glass so—advertently or inadvertently—exposed to the influence of the magnetism.

The differences in the sensibility of the two sisters were strikingly marked in two experiments made this week. *Debilitated* patients were found, as we have mentioned, not to magnetise Jane O'Key. Some days after the experiment was tried, we were informed that Elizabeth O'Key was found so sensitive in this respect, that *every one* of the patients affected her, though the *intensity* of the stupefaction or sleep proved to be an exact indication of the strength of the patient. On the other hand, it had been found, two days before, on attempting to ascertain the cause of contradiction in an experiment, that Jane O'Key was stupified by taking a piece of gold from any bed in which a person had slept on the previous night, or had recently sat. And that rubbing her hands on such particular places stupified her, sometimes for half a minute, on closing them. Trial of this being now made on Elizabeth O'Key, no effect, we were informed, followed the attempt. If Jane rubbed her own clothes, no stupor ensued on closing her hands; but if she rubbed the sleeve of another person she was stupified on shutting her hand the first time. If she rubbed the tail of a frock-coat no magnetism was produced, that part not being in contact with the body. If she rubbed her own palms together, she was stupified on closing them the *second* time. If after rubbing the palms she took a plain sovereign in her hand, she was stupified on the *first* time of closing them. These experiments tended altogether to show that the shutting and squeezing of her hands would produce effects which might not or could not be induced without that proceeding. In what manner the pressure eliminated the magnetic effect when the hand had received the agent of stupor, was not apparent. It is one of those difficulties which time must solve.

A remarkable evidence of the *force* of the magnetic power was shown in Elizabeth O'Key. While she was employed in scribbling some words subsequently to those which are above represented, a magnetised sovereign was placed on her boot. In half a minute the leg was paralysed, rooted to the floor, perfectly immoveable at the joints, and visited with pain so intense that the poor girl (in whom such an effect was not anticipated) writhed in agony. The muscles of the leg were found to be rigid and stiff, as if carved in wood. The simple medium of this powerful agent was soon removed, and the pain wholly left her in a quarter of a minute. She was certainly not aware of the cause, and resumed her writing. If any limb or part be paralysed or convulsed, she never looks at it unless told to do so. The same time kind of pain has not been manifested in the upper limbs. When a mesmerised sovereign was to-day placed in her left hand as it hung at her side with the palm turned backwards, the hand and arm were presently fixed with marble-like firmness. No stupor having occurred, she was told to return the sovereign, but she could not move her arm a hair's breadth from her side, but, in the attempt, rose, body and all, on tiptoe.

At the close of the experiments on one of the days which are mentioned in the foregoing account,—that on which the experiments with the chains were made,— Dr. Elliotson, after having made some additional trials with gold and silver pieces, commenced restoring her to the natural state before sending her back to the ward; but having been now for three hours in delirium, and become listless from the frequent sleep, she could not at once be recovered, but fell into a condition of the faculties which the worthy physician and the writer had not before seen,—an intermediate state between the delirious and the rational, in which the listlessness disappeared, and she spoke with great calmness, being, however, still so much in the delirious state as to employ the usual child-like language, and mispronounce her words. At the same time her look indicated that she would not, in the natural state, know what she might now be doing. In this condition she began to give some account to Dr. Elliotson of her feelings on handling the mesmerised money. Hitherto no statement of the kind had come from her; for she had never been, when in the natural state, sensible of anything that occurred to her in any other condition; and when delirious, or in somnambulism, no proof of consciousness of her insanity, or of her feelings under magnetism, could ever be elicited. For the moment that stupor or sleep has commenced, in delirium, forgetfulness has attended it. It is true that she has, when in the natural state, some imperfect sense of the change to sleep which always prefaces the delirium, but the knowledge amounts to nothing more than

this—as we recently learned in a conversation with her,—namely, that at the moment of losing her sense, through any manipulation, she experiences a sensation of "*opening* in the crown of her head;" that she "does not know when it closes again;" and that her eyes seem to become "exceedingly large, three times as big as before." On recovery from this change, whether some hours or some days after, her only sensation is that of "awakening," and of "something being lifted from her eyes." All that occurs in the interval is a blank to her in the natural state, although she does many things in that interval which remain for her to witness when in the natural condition. For instance, she showed to us a school sampler, worked in a very artist-like manner, consisting of the alphabet, and a verse of eulogy on the Bible, with her name and a date, many portions of which, about half, she had worked while "out of her senses" (as she expressed it), being greatly astonished on recovery, at first, at the additions then made to her task. Her mother, also, she said, had often brought to her, when well, pincushions, penwipers, and dolls, which, greatly to her surprise, she had made during the fits of delirium. So frequent and troublesome were these fits, both in herself and Jane, from the extinction, then, of some of their faculties, that "her mother was driven to death with them." On one occasion, for instance, in the winter, Jane had procured the gridiron "to warm the baby on the fire," which her mother entered only just in time to prevent. But in their natural state these poor girls are patterns of good conduct and good feeling.

If coarse or offensive words ever escape their lips it is in the unfortunate delirium, and they are only repetitions of what has passed in their hearing in the streets, just as in puerperal mania the most reserved and accomplished of women will give utterance to the foulest exclamations and discourse, and it would be as humane and justifiable to publish, with a slanderous spirit, the obscene language and vulgar oaths of the noble lady who was recently attended by the foreign accoucheurs in Paris, as to quote for any purpose but its immediate relation to an extraordinary "prophecy," the furious language employed by one of these afflicted patients during a fit of mania that occurred in the ward of the hospital,—although, isolated from every circumstance by which it was attended, this breach of good manners in science has been made in print in in opposing the present inquiry.

But to return to the statement of Elizabeth O'Key during the demi-rational state on the 19th inst. While endeavouring to restore her to the natural state, on being asked some general questions, she requested them not to be put. "Do you know, Dr. Elliotson, I cannot talk to you, I am so ill. It has runned all up to my head from my hands. It have got the whole of me; it makes me such a big. It got a hold of my hand when I took it, and it do pinch me up there so hard; the yellow one does I mean, (the sovereign), but not the other (the shilling) so much. That does'nt hurt what's me. (On being asked to explain more clearly she proceeded.) Suppose I had a doll, and stuck a wire up it, and then pulled it, and threw its stremities about. (She has heard upper and lower extremities talked of in the ward.) That's how it shoots through me. It pulled me such a dreadful way when I took hold of it (the money); but it first burned my hand. The yellow one burned it most. Do you know when I took the way paper it did'nt burn me (the sovereign wrapped in paper), but when the paper was off it dragged me such a way. When it was the white one (the shilling), it was such a funny feel you d'ont know. It always run up to my head, but when it get up there sometimes it does'nt hurt me any more. When it was in a way paper it did not pull me. What do that mean?"

No other explanation could be obtained than that the touching of the money produced a sensation of burning in the hand,* a shooting up to the head, a dragging in the limbs, and a loss of sensation "sometimes" when the influence reached the brain; and that the handling of gold hurt her "dreadfully," but that silver caused only a tingling sensation. The want of consciousness of her general condition, during this statement, was manifested at the close of it, when Dr. Elliotson said to her, on wishing to renew the process of recovery, "Shall I bring you to yourself again?" "To myself?" she asked, with a look of incredulity, "What do that mean? Am I ever anybody else?"

THE PROPAGATION OF THE LEECH IN FRANCE.

A very interesting discourse was lately delivered at the Ecole de Medecine, Paris, by M. Lefevre, M.D., on the great utility of the leech in all inflammatory cases, overflow of blood, bruises and casual accidents, over that of the abused system of bleeding which is too frequently resorted to, not only in this country, but in England, and other northern parts of Europe. It therefore was of the greatest importance to the profession to encourage as much as possible the propagation of this useful animal, which is daily becoming more and more extinct through the ex-

* It may be remembered that when she took hold of Charlotte Bentley's foot and hand, she afterwards said it was "to burn her."

tensive demand that has been made for it within the last twenty-five years, not only by the faculty and numerous hospitals of Paris, and throughout France, but also from the very great demands that are annually made for its exportation to Great Britain.

There are three species of leech in Europe, viz.,—1. The gray or speckled leech, which is far the best, as its bite is not so acute, and has less tendency to irritation than (2) the green, which are more voracious; and, 3, the black or dark-coloured large-sized horse-leech, which is too dangerous to make use of for bleeding in consequence of the inflammation caused by its bite on the human frame, but more especially on that of females, children, and persons of irritable system or impure constitution. Nothing can be safer or more effectual in alleviating the fatal consequences of an overflow of blood, bruises, inflammatory tendency, or other accidents than the leech, as it can be applied with security to any part of the human body that may be injured without the slightest danger to the patient, when the lancet can only make its incision in the adjacent veins, and that often at great risk to the person of an irritable constitution, as the blood so extracted is immediately renewed by the natural system of the circulation of the larger arteries, which once having given vent to their superabundance, require to be repeatedly opened. The practice, therefore, of copious bleeding by the lancet, or bloodletting at all, is highly to be deprecated, if it can possibly be avoided by purgation or any other means, and should only be resorted to in the most dangerous and sudden cases, such as apoplexy, paralysis, violent falls, and inflammations, where the milder power of the leech is not considered sufficiently quick to relieve the patient.

The origin of the leech has long been the subject of much discussion and controversy by some of the most scientific naturalists, members of the faculty, and even byCuvier himself; but not one has yet succeeded in defining its primitive nature, or from what it emanates. That the female leech spawns or lays its eggs, is beyond a doubt. In the spring of the year it is seen in stagnant waters and gentle running streams and ditches, floating on the surface in an apparently sick state, and will not bite at anything, and generally makes towards the verdant banks. It there forms a sort of web or spongy pod, something similar to that of the industrious silkworm, in which ingenious covering it secludes itself from the male. During this solitary confinement a sort of yellow matter is ejected by the animal, after which it leaves its hermitage, which hardens by degrees from the heat of the sun, and takes to the water again with all its usual liveliness, and is more sanguinary than ever it was before this sort of incubation. At the expiration of six weeks exposure to the solar rays the shell becomes evidently pierced in about five and twenty to thirty different holes, from which a kind of maggot of the size of a small barleycorn, of a dark-brown or greenish colour, gradually make their appearance, and take to the water immediately, swimming about in the liveliest manner after their imprisonment.

It is computed that each of these *cocons*, or shells, contains from twenty to thirty of these amphibious animals but that they never exceed that number, and that the female leech spawns but once a year.

Previous to the peace of 1814, the demand for leeches in this country was not very great, being but little employed by the faculty, and they were consequently very abundant. The price at that time varied from five to six francs per thousand for the speckled, and three to four francs per thousand for the green. After the downfall of the late Emperor Napoleon in 1815, several speculators from England came over to Paris, and other parts of France, to lay in their supplies for that country, and an article which a few years previous was considered but of little importance, and only caught by the children of the poorer peasantry in their country rivulets and ditches, and purchased by the conductors of the diligences to the capital, suddenly became a most important branch of medical commerce to the herbalists, and from the extensive demand made for the London market, they gradually rose from five and six francs, to 15, 20, 25, 30, 40, 50, 60, and 100 francs per thousand, for the speckled, and from three and four francs to 75 and 95 francs for the green. The exportations to England from 1815 to 1835 have been so great that both species are become nearly extinct, and this very severe winter has raised the price of the speckled to 200 francs, and the green to 150 francs per thousand. So very profitable has the leech business been that many persons who only had but a hundred or two hundred francs before them in 1815, are at present, in 1838, possessed of splendid fortunes, houses, &c., though they were originally depending on their agricultural labour.

This considerable and continual demand for foreign exportation has naturally decreased the propagation of the leech species, especially the speckled, which may be considered as become extinct in this country, and very few are now to be caught in the departments of L'Aisne, Nord, Somme, Marne, Lot-et-Garonne, Orleannois, and other parts once so abundant in this most useful animal. The reason assigned for its extinction is on account of the improper mode that has been pursued in taking them by the persons employed in fishing them. Formerly they were caught by the parties going into the water bare-legged, and disturbing it with a stick so as to rouse them,

when they immediately clung to their legs, and were put into pans, only keeping the large and middling size, the small or very little ones being thrown back again to propagate. This system was found not sufficiently expeditious to meet the demands of the market, and instead of taking them as heretofore, they were fished with nets, and the young ones, instead of being returned to their element, were either sold at a trifling price to the smaller dealers and hospitals, or thrown away, so that in course of time the rivulets, ponds, and ditches became gradually exhausted. The same method was formerly pursued in England, and the counties of Lincolnshire, Kent, Essex, Sussex, Yorkshire, Buckinghamshire, and other parts, which once produced sufficient to meet the demand, are now become entirely exhausted, so that Great Britain is obliged to import its supply from France or Hamburgh, at an enormous expense. An encouragement to the propagation of the leech in this country is offered by the Minister of Commerce, and the Faculty of Medecine of Paris, and several large reservoirs have been established for that purpose; amongst them may be noted those of M. Lecompte, at Argenteil, a short distance from hence, which are on a very extensive scale, so that in the course of a few years they may perhaps increase, as should the present demands continue, the leech species will in all probability become entirely extinct in Europe in less than ten years.

The only parts where they are at present procured are Poland, Wallachia, Moldavia, Turkey, and Germany, from whence they are exported from Hamburgh, and some few from Lisbon. The annual consumption of leeches in France, England, Italy, Russia, Austria, Prussia, Germany, &c., is estimated at many millions, and is the means of support to thousands of indigent peasantry and their families, who fish them.

BRITISH MEDICAL ASSOCIATION.

Tuesday, July 10, 1838.

Mr. Davidson, Vice-President.

Communications were read from Dr. Webster and Dr. Fearnley.

The following answer to a communication from the Secretary of the Glasgow Medical Association, was then read:—

Dulwich, 3d July, 1838.

Sir:—I had the pleasure of receiving your communication of the 14th ult., from the Glasgow Medical Association, and laid it before the Council of the British Medical Association at its last meeting. The Council are much gratified to find that the members of the profession are becoming daily more alive to the necessity of *union* and *exertion* on their own part, to recover and obtain those rights and privileges which are so essential to their interests, usefulness, and respectability. The Council, therefore, hail with peculiar satisfaction, the existence and position of the medical practitioners of Glasgow, as an associated body, and beg to assure them, that they will at all times most cordially co-operate with them in any measures which may be calculated to advance the prosperity and welfare of their profession; and will be happy to receive or afford suggestions on medical reform, &c.

The British Medical Association, as its name imports, was intended to ramify or extend over the whole kingdom, which it is rapidly doing—its founders believing that union and organisation were vitally important in effecting the objects which they had in view. It was considered that the members of the profession would thus have the opportunity of, at any time, expressing their sentiments, or of acting with promptness and unanimity, and of thereby avoiding the contradictory recommendations and ill considered petitions which are too frequently presented to Parliament from isolated or distinct bodies, to the great injury of medical reform and the embarrassment of the Government.

For this, and similar reasons, the Council strenuously recommend the *junction*, if possible, of all medical reformers into *one association* as the best means of increasing their influence and moral power. The various branches should have the right to consider and offer suggestions on any points, and especially to originate those which may peculiarly affect themselves; but no ulterior steps should be taken without the sanction of the Metropolitan Council. It is unnecessary to point out the importance of having a directing body in London to communicate with Government and the other authorities; to act immediately in cases of sudden emergency, or to take advantage of any favourable circumstance that may arise—in short, to watch over the interests of the profession.

The prominent object of the British Medical Association is, 1st, the establishment of a "National Faculty of Medicine," (of which a branch might exist in each capital) which should comprehend all the legally qualified practitioners in the kingdom. 2ndly. That a Senatus or representative Council be elected by the Faculty which shall manage the affairs of the profession, and regulate all matters relating to the education, examination, and admission of future members. 3rdly. That the members of the Faculty shall all possess the same rights, privileges, immunities, and be able to practise in all parts of her Majesty's dominions without let or hinderance. 4th. That the members of the Faculty be recognised by the title of Doctor; or they might be divided into two classes, Doctor in Medicine, and

Doctor in Surgery; and that they shall be at liberty to practise the whole, or any branch of the healing art, and write prescriptions only, or dispense their own medicines, as may be found most eligible or convenient. 5thly. That chemists and druggists shall be examined as to their knowledge of chemistry, materia medica, and pharmacy; and be licensed to dispense medicines only, but not to practise any branch of the profession. 6thly. That there be a British Pharmacopæia for the whole empire. 7thly. That all the members of the Faculty be registered, and that any person practising without being so registered, or holding a diploma or license from the Senatus, shall be summarily punished.

In furtherance of some such plan of medical reform, as is here briefly outlined, a deputation of the Council of the British Medical Association, lately waited on Lord John Russell, to urge on his Lordship the importance of having published without further delay, the remainder of the parliamentary evidence taken in 1834, on medical education and practice, and the laws and practices of the Colleges and Corporations; as such evidence would show the necessity for an extensive reform in medical affairs. The deputation also inquired whether the Government would, during the next Session of Parliament, introduce, or sanction the introduction of a medical reform bill. For an account of this interview, and his Lordship's answer and kind reception, I must refer you to THE LANCET of the 16th ult., merely observing that the Faculty of Physicians and Surgeons of Glasgow were mentioned among the close corporations, though by mistake omitted in the report.

Another subject which has recently engaged the attention of our Council, is the alarming increase and extent of quackery in its numerous forms; but I firmly believe, that a National Faculty, and its regulations, will prove the only cure for this growing evil.

A third subject, and one which has greatly affected the interests and respectability of medical practitioners in *England*, is the Poor-Law question. The urgent nature of the evils which the Poor-Law Amendment Act brought upon the profession first induced the formation of our Association. It has necessarily held a prominent place in our proceedings, and has engaged much of our time and attention, as a subject which required our utmost strength and energy to grapple with; having the Poor-Law authorities and a large majority in Parliament opposed to us. I am happy to be able to add that since I received your letter, we have brought our inquiry into those evils before the Poor-Law Committee of the House of Commons to, I hope and believe, a very successful termination. We have been able by the aid of parliamentary returns, moved for, and obtained by Mr. Wakley, who is a member of our Council, by correspondence with our own members, and with the help of members of the Provincial Medical Association, to lay before the Committee, a mass of evidence, documentary and oral, which the Committee and even the Poor-Law authorities were obliged to own were irresistible; and we have the gratification of looking forward to speedy alterations and amendments, both as regards the poor and our profession.

A petition to both Houses of Parliament from the Glasgow Medical Association, praying for a National Faculty of Medicine, and perhaps the suppression of quackery, would, I think, at present promote the cause of medical reform. Apologising for the delay which has necessarily taken place in answering your communication, I remain, Sir, with the greatest respect for the members of the Glasgow Medical Association, your faithful servant,

(Signed) GEO. WEBSTER.

A. Mackie, Esq., Secretary of the Glasgow Medical Association.

BENEVOLENT COMMITTEE.

A Committee under the above title was then formed, of the following members of Council.

Dr. Hull, Peckam.
Mr. Laives, King-street, Westminster.
Mr. Herring, Sun-street, Finsbury.
Mr. Delph, Newington Causeway.
Mr. Crisp, Walworth.
Mr. Harrison, Southampton-street, Fitzroy-square.

The duties of this Committee will consist in the institution of inquiries into applications for pecuniary relief. The Committee are totally unconnected with the Benevolent Fund of the Association, and will only have to inquire into such applications as are made to individual members of the Association by distressed medical men. The Council were instigated to the formation of this Committee, from the fact that many persons had applied to them individually for the purpose of requesting relief; in some instances it was to be regretted, that the applicants were imposters. The Committee, by their inquiries would prevent the occurrence of such impositions, by giving to those applicants who were really deserving a testimonial to that effect.

ACCIDENTAL CURE OF CANCER.—Salvatore Marchese, a patient of the Military Hospital, was affected with cancer of the nose. He had applied to it an escharotic paste, given to him by a mendicant capuchin, one of the ingredients of which was cantharides. Immediately after its application, a phlegmonous erysipelas ensued which involved the cancer, a perfect line of demarcation was formed between the diseased and sound parts, and the result was a perfect cure of the disease.

LIGATURE OF THE RIGHT COMMON CAROTID ARTERY,

FOLLOWED BY HEMIPLEGIA OF THE LEFT SIDE OF THE BODY.

A LATE number of Rust's Journal contains two examples of paralysis following ligature of the carotid artery, an occurrence which had previously been observed by Baron von Graefe and Sir A. Cooper.

CASE 1.—The first case was that of a man, 49 years of age, affected with medullary fungus of the palate. Various attempts having been ineffectually made to check or extirpate the disease with mercury, Fowler's solution, the knife, and the actual cautery, it was resolved to try what effect might result from tying the common carotid artery. This was accordingly done on the right side without any difficulty or accident during the operation. Two hours afterwards the patient began to complain of an unusual sensation in the whole of the right side of the head, attended with some difficulty of deglutition; towards evening this sensation had disappeared, and was replaced by severe pain in the left side of the head; the dysphagia had increased; the face red; the pulse equally frequent at both wrists, full and hard. Eight ounces of blood were taken from the arm, and an anodyne draught exhibited. The symptoms continued without much alteration for a week, when, at the morning visit, the surgeon found the patient unable to move the left hand or foot. He immediately ordered more blood to be taken from the arm, and a purgative draught to be administered. The paralysis continued without any modification. The ligature came away on the 28th day, but the size of the tumour in the mouth had not then undergone any diminution; the reporter of the case does not detail the treatment which was adopted at this period, but merely says that the man sunk and died on the 26th day after the performance of the operation. On examining the body the next day the artery was found free from lesion, but several portions of the right hemisphere of the brain, including the centrum ovale, the ventricle and corpus striatum were excessively softened; the left hemisphere was free from lesion. The abdominal and pectoral viscera did not present anything worthy of notice.

CASE 2.—In this case the right carotid artery was tied for aneurysm of the innominata, after Valsalva's method had been tried without success. Half an hour after the operation the patient began to feel a sense of lightness in the head, which soon terminated in severe pain extending across the forehead. Towards evening the headach increased, the pulsations of the aneurysmal tumour became more violent, and a tendency to vomiting manifested itself. Twelve ounces of blood were taken from the arm and a purgative clyster thrown up. During the night the patient continued to vomit, and complained of increased pain in the head, although the bowels had been freely evacuated. On the third day after the operation symptoms of paralysis appeared in the left side of the body, and the patient soon fell into a state resembling that produced by concussion of the brain; he was again bled to 8 oz., a blister applied to the neck, and an ice-cap to the head. These remedies had, however, no effect; the respiration become gradually more and more difficult, and the patient died on the fifth day after the operation.

The body was examined on the following day, but in this case no lesion of the brain was discovered which could account for the existence of paralysis; the cavities of the chest and abdomen presented nothing abnormal.

EXTIRPATION OF THE OVARY.

No. I. of the same volume contains a paper on puncture and extirpation of the diseased ovary by Dr. Dohlhoff. The results of this practice were anything but favourable.

Two cases of sacculated dropsy, treated by puncture, terminated fatally within a few days after the operation; two other cases in which the ovary was extirpated likewise terminated in the death of the patient.

A third case is remarkable for its analogy to one which excited no small share of interest several years ago in a northern metropolis; it is detailed with the utmost candour by the author, who freely acknowledges the error of diagnosis into which he, as well as his colleagues, fell.

F. G., 23 years of age, was received into hospital on the 12th of November, 1835, for abscess in the neighbourhood of the knee-joint. After remaining some time under treatment she became incapable of passing her urine, and the retention was so complete as to require the constant application of the catheter. She now complained of pain in the lower part of the abdomen, and at this point a tumour become developed which gradually filled nearly the whole of the abdominal region below the umbilicus, giving rise, in addition to retention of urine, to obstinate constipation. The latter was so difficult to overcome that three drops of croton oil produced only a single stool, and the same dose was repeated daily for four days without giving rise to a second evacuation of the bowels.

Various remedies were ineffectually tried up to the 10th September, 1836; the tumour of the abdomen continued undiminished,

and on a consultation being held, it was determined to extirpate the diseased mass with the knife.

On the 19th of September the author proceeded to lay open the cavity of the abdomen, in the presence of his colleagues and pupils; the bladder having been emptied by the catheter, an incision five inches in length was made through the linea alba, and the hand introduced into the abdomen, but *no trace of the tumour remained*; it had disappeared while the operator was dividing the abdominal integuments.

It is unnecessary to say that the wound was closed as quickly as possible, and the patient carried to bed. On the day after the operation both the urine and fæces were passed without any difficulty, and the patient had the good fortune to recover in the course of a few weeks.

The author concludes this instructive case by declaring his opinion that what was mistaken for diseased ovary was nothing else than a spasmodic affection of the intestinal canal, causing retention of gas and thus simulating the appearance of a tumour.

THE BLOOD.

Professor Mitscherlisch has performed a variety of experiments for the purpose of determining whether substances introduced into the animal economy cause any appreciable change in the blood, but the results obtained have unfortunately been, for the most part, negative. He has, however, ascertained that most substances act only on the globules of the blood when placed in immediate contact with them; for if they are submitted to the influence of digestion and absorption they undergo certain changes which totally destroy their powers; thus acetic acid, oxalic acid, ammonia, will not dissolve the globules, unless injected directly into the veins or arteries. Solutions of the sulphate of iron, of sulphate of copper, when introduced through the stomach, seem to exercise no influence on the blood, but if mixed directly with the latter they produce an evident irregularity in the form of the globules.—*Müller's Arch. and Arch. de Med.*, July.

SUDDEN DEATH.

In a memoir on the causes and frequency of sudden death, M. Devergie analyses forty cases which he had observed, and shows, contrary to the vulgar opinion, that apoplexy is much less frequently the cause of sudden death than is imagined; of the forty cases only one was produced by apoplexy. Pulmonary congestion is a much more frequent cause; this has been observed by M. Devergie in twelve cases singly, and in twelve others combined with congestion of the brain. Finally, he asserts, that syncope may terminate in death, without the occurrence of any organic lesion.—*Arch. de Med.*, July, 1838.

DANGER OF MANUFACTORIES EMPLOYING ARSENIC,

TO THE NEIGHBOURING POPULATION.

During a space of thirty years that a manufacturer of coloured paper had been in the habit of preparing his colour with mineral substances, several families who inhabited the next house to the manufactory, were affected with various symptoms, such as pain in the head, constant colic, diarrhœa, tumefaction of the limbs, &c.; and many members of those families died from time to time, with the above symptoms. Several other persons having fallen victims to the same disorder it was suspected that the water of the well from which the inhabitants of the house were accustomed to drink might have been poisoned by some of the mineral substances employed in the manufactory, and two well instructed chemists were ordered to examine it, but could find nothing of a deleterious nature. The people of the house, therefore, took courage, and continued to use the water until symptoms of poisoning set in with such violence as to leave no doubt as to the cause of the illness produced. A deep cut was now made in a cellar belonging to the manufacturer (and not far from the well), and this cut soon became filled with water from the court-yard of the manufactory. Several quarts of this water were evaporated, then filtered, and the residue tested with hydrochloric acid, but no remarkable effect was produced.

The cause of the error was now manifest. The arsenic was contained in the earthy residue which remained on the filter; this was, therefore, re-examined, and found to contain a remarkable quantity of arsenic.—*Jour. de Pharm.*, July, 1838.

ANTIDOTE AGAINST ARSENIC.

We have already given an account of the experiments made with the hydrated peroxide of iron, as an antidote for arsenic, and their results. The following is a remarkable example of the efficacy of this means.

A baker finding the food prepared for his pigs was devoured by the rats, mixed up 4oz. of arsenic with a quantity of flour and placed in the troughs, having previously locked up his two sows in a place of safety. The animals, however, having broken open the door, eat up the whole of the flour, and were immediately seized with symptoms of poisoning. Two medical gentlemen in the neighbourhood being made acquainted with the circumstance, mixed up from two to three pounds of the peroxide with water and flour, and gave it to the pigs, who drank with avidity about one half, but refused to take the rest. The animals were now laid upon the ground, and a pound of the antidote

was forced down their throats. The remedy was administered in the same quantity, at two different times, and although the animals continued in a feeble state for 15 days, they ultimately got quite well.

We trust the recital of this case will not be thrown away, but that all apothecaries and druggists in the country will provide themselves with a remedy, which, when timely administered, is a certain antidote to the most commonly employed of poisons.—*Journ. de Pharm.* July, 1838.

CASE OF

INFANTILE CONVULSIONS SUCCESSFULLY TREATED.

(Communicated by the Patient's Father.)

Charles Harrington, born June 17, 1837, had enjoyed uniformly good health up to May 1, 1838, with the exception, however, of a slight umbilical hernia which was radically cured by appropriate treatment.

Until the 7th of May nothing particular was observed; but in the forenoon of this day some disturbance of the respiration was noticed, and in the evening he had a slight fit of convulsions.

The attack was ascribed to the state of the bowels; some purgative medicines were administered, and the night was passed quite comfortably.

On the 8th the fits recurred; one took place in the forenoon, a second in the afternoon, and a third at night. None of them were of great severity. The purgatives were repeated, and the three following days passed without any convulsive symptom, except a little crowing, which was observed occasionally. On Friday morning (May 11th), a rash appeared about the body, which, it was thought, might probable indicate the approach of measles.

On Saturday 12th, about noon, the child was, without the slightest observable warning, seized by a convulsion fit, which produced the most distressing embarrassment of the respiration, rigid stiffness of the limbs, with fixing of the eyeballs, and firm contraction of the extremities. The patient was immediately placed in a warm bath, when the eyes partially closed, and the respiration (as far as I could discern) in a complete state of suspension. In this condition he was found by Dr. Marshall Hall, whose assistance was quickly obtained.

By Dr. M. H.'s direction a large enema of warm water was administered, and the gums were freely lanced. Inadequate relief having been obtained by these means, Dr. Hall advised the opening of the jugular vein, which was performed by Mr. Watkins, and rather more than half a small tea cup full of blood (perhaps from 1½ to 2oz.) was taken away. The effects of the fit then gradually subsided, and the following treatment was ordered.

Calomel, 1 grain;
Rhubarb, 4 grains;
Jalap, 1 grain. Make a powder to be taken thrice a-day.
Tinct. hyosciamus, 1 drop;
Syrup of oranges, ½ drachm;
Peppermint water, 2 drachms;
Aromatic spirit of ammonia, 3 drops.—Draught to be taken every fourth hour; a lotion of alcohol and rose water to the head. It was also desired that a young wet-nurse should be immediately procured.

At half-past 10 P.M. a fit again took place, but it was slight, and of very brief duration. The rest of the night passed quietly; but on the 13th, at half-past 3 o'clock A.M. a severe convulsive fit again seized [illegible]. He was instantly put into a w[illegible] it gradually went off having [illegible] than an hour. Another at[illegible] tween 8 and 9 o'clock A[illegible] vised (not without the fu[illegible] danger) a repetition o[illegible] the jugular vein. This [illegible] diately performed, and [illegible] to the quantity of abo[illegible] that which escaped. T[illegible] ment was then prescribe[illegible]

Calomel, 1 grain. Ma[illegible] taken every hour.
Hydrocyanic acid, ½ of a [illegible]
Tinct. of hyosciamus, 1 drop
Syrup of oranges, ½ drachm;
Aromat. spirit of ammonia, 4 drop[illegible]
Peppermint water, 1½ drachms. Draught to be taken according to circumstances.—Ice to be kept constantly applied to the head by means of a bladder. The food to consist of ass's milk ½, water, thickend with arrow-root, ¾, until a wet-nurse could be procured.

The remainder of this day, and the ensuing night were passed without any return of the fits. The motions were frequent, and charged with green matter and mucus.

14. No recurrence of the fits. The gums were again lanced, and all the remedies continued. The night was passed without alarm.

15. Early this morning the child appeared to be in great pain from griping; all the medicines, except the composing draughts were therefore suspended. At 1 P.M. a slight fit took place, and a grain of calomel was directed to be administered every hour, until the bowels should be twice moved, and the dose to be then reduced to half a grain; the hydrocyanic acid mixture was directed to be given every two hours, and the composing draughts to be used as occasion should require.

A slight repetition of the fit took place this afternoon.

Three grains of the calomel were given before the second motion was obtained, and

two half-grain doses were subsequently administered. Another motion having passed, it was resolved to suspend the use of the medicine. In its room, the following prescription was given:

Calomel and chalk, ½ drachm;

Sugar, 12 grains. Divide into 12 powders; one every hour.

In other respects the previous treatment was continued.

The child still resolutely refused the breast of another wet-nurse, who was procured this day, but took the artificial food, at proper intervals, until about 1 A.M. on the 16th, when the griping again returned with great violence, and prevailed, in spite of small portions of the composing draught given occasionally, until five o'clock A.M. [illegible] of the composing draughts was then [illegible]ntire, and relief was obtained for [illegible] hours, but the pain again re[illegible] enema of starch was adminis[illegible]nsiderable relief was thereby [illegible]he administration of medicine [illegible]nded. No recurrence of the [illegible]k place in the course of the [illegible]tient appeared better, taking [illegible]eeping quietly at regular in[illegible]

[illegible] was now made, with success, [illegible] child to take the breast, and [illegible], the nursing being securely [illegible], he following directions were [illegible]. The gums to be freely lanced [illegible]aird day; a powder, with one grain [illegible]alomel, every night; and the starch injection every morning. The nurse's milk as the sole diet. The spirit lotion instead of the ice. The cordial draught if there be pain."

ON THE

PRODUCTION OF EXTRACTUM TARAXACI, &c.

BY SPONTANEOUS EVAPORATION.

To the Editor of THE LANCET.

SIR:—Twelve years have elapsed since I first suggested to the profession the method of preparing herbaceous extracts by spontaneous evaporation; the mode of conducting the process was not made public until by many and varied experiments, I felt assured I had produced preparations far superior to those in common use in many respects; it will be sufficient in this short paper to mention two,—their durability, or keeping through the year without deterioration, and their more powerful medicinal virtues. As I do not deal in drugs (as some supposed from the pains I took to impress the profession with a favourable opinion of these extracts), it is of no consequence to me that my suggestions have met with so little attention from the profession; I may say in the words of the Royal College of Physicians, "Sed ante omnia medicorum suppellecti* adornandæ, et ægrorum saluti consuluimus." The opinions on this subject which I have repeatedly stated to the profession through the medium of the medical journals, have not been altered by more extensive experience, as I firmly believe that no method hitherto made public, is worthy to be compared with the spontaneous process. I have not been able to make any essential improvement in the plan I first proposed. It is very easy to make trifling modifications in any manufacture without any material improvement; but no legitimate claim to originality can be founded upon such a basis, and although the process has not met, in my humble opinion, with the reception it merits amongst those who take the lead in pharmacology, yet it has not been altogether neglected. Sir James Clarke makes favourable mention of it in his excellent work on consumption. When writing upon taraxacum, the learned author remarks, that my plan of making the extract of the root of this plant admits of improvement; what improvement Sir James has made in it is, I believe, at present a secret, or at least not published, therefore I am not in a position to make any observation upon its merits. "Si quid novisti rectius istis candidus imperti." Extracts after this process have been well prepared by some of our ingenious and intelligent chemists; these gentlemen, I believe, are styled in the new Pharmacopœia *medicamentorum opifices indocti*, many of them, to my certain knowledge, are far from ignorant in the art and science of pharmacy.

Of the various extracts that may with advantage be prepared in this way, no one has higher claims to the attention of the profession than the extractum taraxaci. The leontodon taraxacum has long been considered by the profession at large a plant of doubtful virtues, for although it has been much used, it should seem as a matter of courtesy to its few advocates of high name; yet the practitioner has not found in his experience, when submitted to rigid scrutiny, that its efficacy is of a decided character; in fact, this valuable plant has been much used, and but little studied; books have been read, but Nature herself in this instance, as well as in many others, has been allowed to carry on her functions unnoticed; hence it is that the root of taraxacum has been ordered to be gathered at the very time that it is least fit for medical purposes. In Pall-mall East they stick to the old rule concerning radices; I would ask the Col-

* I do not follow Phillips in rendering this word, I do not wish to make any allusion to the domestic economy of the physician.

was forced down their throats. The remedy was administered in the same quantity, at two different times, and although the animals continued in a feeble state for 15 days, they ultimately got quite well.

We trust the recital of this case will not be thrown away, but that all apothecaries and druggists in the country will provide themselves with a remedy, which, when timely administered, is a certain antidote to the most commonly employed of poisons.—*Journ. de Pharm.* July, 1838.

CASE OF

INFANTILE CONVULSIONS SUCCESSFULLY TREATED.

(Communicated by the Patient's Father.)

Charles Harrington, born June 17, 1837, had enjoyed uniformly good health up to May 1, 1838, with the exception, however, of a slight umbilical hernia which was radically cured by appropriate treatment.

Until the 7th of May nothing particular was observed; but in the forenoon of this day some disturbance of the respiration was noticed, and in the evening he had a slight fit of convulsions.

The attack was ascribed to the state of the bowels; some purgative medicines were administered, and the night was passed quite comfortably.

On the 8th the fits recurred; one took place in the forenoon, a second in the afternoon, and a third at night. None of them were of great severity. The purgatives were repeated, and the three following days passed without any convulsive symptom, except a little crowing, which was observed occasionally. On Friday morning (May 11th), a rash appeared about the body, which, it was thought, might probable indicate the approach of measles.

On Saturday 12th, about noon, the child was, without the slightest observable warning, seized by a convulsion fit, which produced the most distressing embarrassment of the respiration, rigid stiffness of the limbs, with fixing of the eyeballs, and firm contraction of the extremities. The patient was immediately placed in a warm bath, when the eyes partially closed, and the respiration (as far as I could discern) in a complete state of suspension. In this condition he was found by Dr. Marshall Hall, whose assistance was quickly obtained.

By Dr. M. H.'s direction a large enema of warm water was administered, and the gums were freely lanced. Inadequate relief having been obtained by these means, Dr. Hall advised the opening of the jugular vein, which was performed by Mr. Watkins, and rather more than half a small tea cup full of blood (perhaps from 1½ to 2oz.) was taken away. The effects of the fit then gradually subsided, and the following treatment was ordered.

Calomel, 1 grain;
Rhubarb, 4 grains;
Jalap, 1 grain. Make a powder to be taken thrice a-day.

Tinct. hyosciamus, 1 drop;
Syrup of oranges, ½ drachm;
Peppermint water, 2 drachms;
Aromatic spirit of ammonia, 3 drops.—Draught to be taken every fourth hour; a lotion of alcohol and rose water to the head. It was also desired that a young wet-nurse should be immediately procured.

At half-past 10 P.M. a fit again took place, but it was slight, and of very brief duration. The rest of the night passed quietly; but on the 13th, at half-past 3 o'clock A.M. another severe convulsive fit again seized the child. He was instantly put into a warm bath; and it gradually went off having lasted little less than an hour. Another attack came on between 8 and 9 o'clock A.M. Dr. Hall advised (not without the fullest warning of its danger) a repetition of the bleeding from the jugular vein. This operation was immediately performed, and blood was withdrawn to the quantity of about an ounce, besides that which escaped. The following treatment was then prescribed:—

Calomel, 1 grain. Make a powder to be taken every hour.

Hydrocyanic acid, ½ of a drop every hour;
Tinct. of hyosciamus, 1 drop;
Syrup of oranges, ½ drachm;
Aromat. spirit of ammonia, 4 drops;
Peppermint water, 1½ drachms. Draught to be taken according to circumstances.—Ice to be kept constantly applied to the head by means of a bladder. The food to consist of ass's milk ½, water, thickend with arrow-root, ½, until a wet-nurse could be procured.

The remainder of this day, and the ensuing night were passed without any return of the fits. The motions were frequent, and charged with green matter and mucus.

14. No recurrence of the fits. The gums were again lanced, and all the remedies continued. The night was passed without alarm.

15. Early this morning the child appeared to be in great pain from griping; all the medicines, except the composing draughts were therefore suspended. At 1 P.M. a slight fit took place, and a grain of calomel was directed to be administered every hour, until the bowels should be twice moved, and the dose to be then reduced to half a grain; the hydrocyanic acid mixture was directed to be given every two hours, and the composing draughts to be used as occasion should require.

A slight repetition of the fit took place this afternoon.

Three grains of the calomel were given before the second motion was obtained, and

two half-grain doses were subsequently administered. Another motion having passed, it was resolved to suspend the use of the medicine. In its room, the following prescription was given:

Calomel and chalk, ½ drachm;

Sugar, 12 grains. Divide into 12 powders; one every hour.

In other respects the previous treatment was continued.

The child still resolutely refused the breast of another wet-nurse, who was procured this day, but took the artificial food, at proper intervals, until about 1 A.M. on the 16th, when the griping again returned with great violence, and prevailed, in spite of small portions of the composing draught given occasionally, until five o'clock A.M. One of the composing draughts was then given entire, and relief was obtained for about two hours, but the pain again returned. An enema of starch was administered, and considerable relief was thereby obtained. The administration of medicine was now suspended. No recurrence of the convulsions took place in the course of the day, and the patient appeared better, taking his food, and sleeping quietly at regular intervals.

An attempt was now made, with success, to induce the child to take the breast, and on the 17th, the nursing being securely established, he following directions were given:—"The gums to be freely lanced every third day; a powder, with one grain of calomel, every night; and the starch injection every morning. The nurse's milk as the sole diet. The spirit lotion instead of the ice. The cordial draught if there be pain."

ON THE

PRODUCTION OF EXTRACTUM TARAXACI, &c.

BY SPONTANEOUS EVAPORATION.

To the Editor of THE LANCET.

SIR:—Twelve years have elapsed since I first suggested to the profession the method of preparing herbaceous extracts by spontaneous evaporation; the mode of conducting the process was not made public until by many and varied experiments, I felt assured I had produced preparations far superior to those in common use in many respects; it will be sufficient in this short paper to mention two,—their durability, or keeping through the year without deterioration, and their more powerful medicinal virtues. As I do not deal in drugs (as some supposed from the pains I took to impress the profession with a favourable opinion of these extracts), it is of no consequence to me that my suggestions have met with so little attention from the profession; I may say in the words of the Royal College of Physicians, "Sed ante omnia medicorum suppellecti* adornandæ, et ægrorum saluti consuluimus." The opinions on this subject which I have repeatedly stated to the profession through the medium of the medical journals, have not been altered by more extensive experience, as I firmly believe that no method hitherto made public, is worthy to be compared with the spontaneous process. I have not been able to make any essential improvement in the plan I first proposed. It is very easy to make trifling modifications in any manufacture without any material improvement; but no legitimate claim to originality can be founded upon such a basis, and although the process has not met, in my humble opinion, with the reception it merits amongst those who take the lead in pharmacology, yet it has not been altogether neglected. Sir James Clarke makes favourable mention of it in his excellent work on consumption. When writing upon taraxacum, the learned author remarks, that my plan of making the extract of the root of this plant admits of improvement; what improvement Sir James has made in it is, I believe, at present a secret, or at least not published, therefore I am not in a position to make any observation upon its merits. "Si quid novisti rectius istis candidus imperti." Extracts after this process have been well prepared by some of our ingenious and intelligent chemists; these gentlemen, I believe, are styled in the new Pharmacopœia *medicamentorum opifices indocti*, many of them, to my certain knowledge, are far from ignorant in the art and science of pharmacy.

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* I do not follow Phillips in rendering this word, I do not wish to make any allusion to the domestic economy of the physician.

lege, by the way, how *pleraque radices* are to be found *antequam caules aut folia exserant*. It is now the season for gathering the root of taraxacum, it being now in possession of its maximum of juices, which juices, obtained by expression, and inspissated by spontaneous evaporation in shallow earthen dishes, will form an extract of decided medicinal properties, and will be found to be a very valuable remedial agent, in various forms of dyspepsia, in doses of from five to ten grains three times a day. I do not believe it has any direct influence on the liver, but by its relieving gastric and intestinal irritation, will frequently do more for cases termed bilious, than calomel and other active medicines. I have frequently seen the most happy results follow the use of taraxacum alone, in cases which have been tormented by mercury and other heroic remedies, which have superinduced a degree of irritation more serious than the original disease itself. I am, Sir, your obedient servant,

JOSEPH HOULTON.

87, Lisson-grove, July 20, 1838.

SMALL-POX IN UTERO.

To the Editor of THE LANCET.

SIR:—In THE LANCET for 20th January, 1838, there is an account of a case with remarks, which was read by Mr. Streeter, at the Westminster Medical Society, on the effects of modified small-pox upon the fœtus in utero. He stated in this paper that one case only of this disease, under these circumstances, had occurred in his practice, and that he had only heard of three other cases. As a record of facts respecting this point in the disease, by practitioners, might ultimately tend to determine the law by which its effects on the fœtus are regulated, I have sent you the following case, which you will oblige me by inserting in THE LANCET. I am, Sir, your most obedient servant,

WILLIAM DAVIDSON, M.D.

71, West Nile-street, Glasgow,
29th June, 1838.

CASE:—A married lady, æt. 21, of healthy constitution, vaccinated when an infant, having a regular cicatrix on her arm, and in the eighth month of her first pregnancy, was seized on 9th Dec., 1837, with pyrexial symptoms, cough, and urgent difficulty of breathing, attended with pain in the chest. She was bled from the arm and blistered on the chest, with decided relief to the pain and difficulty of breathing, the blood being buffy; but complete relief was not obtained until the eruption of small-pox made its appearance on the 12th; after which the pulse gradually subsided to its natural standard, and there was scarcely any increased quickness of it during the maturation of the pustules. The eruption was slightly confluent on the face, but perfectly distinct, though copious, over the rest of the body. It began to decline about the eighth day, and she soon recovered her usual good health; felt the movements of the fœtus as before, and no pits or marks were left on the face or any other part of her body. During the course of the disease, in addition to the treatment already mentioned, she had castor oil occasionally and small doses of tartrate of antimony. After the usual period of uterogestation was completed, and after an ordinary labour, she was delivered of a son on the 18th January following, who though small and somewhat emaciated, seemed to labour under no disease, and there were no marks of any kind on his body; or, indeed, any other appearance, which could induce the supposition that he had laboured under small-pox.

He was vaccinated when about two weeks old, but without effect; this was repeated three times at intervals with dry matter, but with the same result. It was again done with fluid matter, but still without effect; but it was at last performed successfully on the 18th of this month, and three very regular and beautiful vesicles, containing very transparent lymph, were produced, which were after the 8th day surrounded by the usual areola. It may, perhaps, be supposed by some persons that the difficulty of succeeding in the vaccination of this case arose from the child having been affected with the virus of small-pox while in utero; but it is much more probable that the repeated failures were owing to the necessity of attempting it when he was so young and possessed of so little plumpness or vigour in the system; for the same want of success frequently occurs in ordinary cases under similar circumstances of body, or if the skin be harsh and dry.

HYDATIDS OF THE HEART.

To the Editor of THE LANCET.

SIR:—In the last number of Dr. Copland's valuable Medical Dictionary, at page 218, he treats of "watery cysts and hydatids" found attached to, or within, the substance of the human heart. He considers that the former are not unfrequent, but he thinks that the presumed hydatids mentioned by continental writers, are mostly mistakes, being watery cysts merely. There is, however, a case by Trotter, and published in his "Chemical and Medical Essays," in 1796, which looks more like the truth, but respecting even the correctness of this, the Doctor throws considerable doubt. Indeed, although he does not venture to deny that

loose hydatids may have been found in the heart, yet he adds "that it is of extremely rare occurrence." This induces me to forward to you the following case, thinking that the actual symptoms previous to death might be new to many of your readers

Mr. William P. Broderibb was called to see a respectable female of Warminster, in 1835. He learned that she had, after passing a quiet good night, been seized, whilst dressing, with severe dyspnœa. Her respirations were unnaturally frequent; the face was pallid; the lips livid. She was quite conscious, but unable to articulate, and when questioned "as to her pain," put her hand upon the chest; the pulse was very small, and beating 130, but without irregularity or intermission, or very slightly so. The hand being placed over the region of the heart, that viscus was felt to beat with great force and violence. In this state she continued until she died, which happened three hours after the seizure.

Upon examination of the subject the heart was found to be in a natural state, excepting that one large hydatid occupied so entirely the right ventricle that the passage of the blood into the pulmonary artery must have been prevented. Upon opening this single hydatid it was found to contain about eight or ten others floating about in a fluid. That they are common hydatids I have not the shadow of a doubt, and no one who has seen the preparation has expressed one.

As I am upon the subject of hydatids, I will add that in a newly-born infant Mr. Charles Bleeck, also a practitioner in Warminster, found two bags filled with these, and resembling closely packed grapes. One bag is about four inches broad and five long; the other somewhat less; each must contain some hundreds of hydatids. The bags were attached by a few very slender filaments to the peritoneum, otherwise they were hanging quite loose.

Both these preparations are in my museum deposited at the Infirmary, and open to the inspection of all professional and scientific persons, who will favour it with their company. Of course it is to the liberality of my Wiltshire friends that I am indebted for these valuable presents, and I am happy in this opportunity of returning my thanks to them thus publicly. I remain, Mr. Editor, yours truly,

RICHARD SMITH,
Senior Surgeon, Bristol Infirmary.
38, Park-street, Bristol,
July 13, 1838.

Allow me to add, by way of P.S., that Mr. John Brady presented to me a short time since a bony compact deposit, which weighs four pounds; it was attached to the mesentery only. The uterus and appendages had also deposits, in number about twenty, varying in size from a chesnut to a small orange. It is a curious fact, that this woman, who had been many years the inmate of St. Peter's Hospital poorhouse, died at the age of 72, having never complained of the smallest pain or inconvenience. The post mortem examination was an accidental occurrence by the apprentices of Mr. Brady, who had no suspicion of anything particular.

QUESTION OF REMUNERATION FOR EXTRA LABOURS OF UNION SURGEONS.

To the Editor of THE LANCET.

SIR:—In THE LANCET of the 28th of April, is a paragraph setting forth, in most positive terms, the necessity of complying with an order from the House of Commons to make out certain medical returns from the Unions, stating that noncompliance with such order subjects the party to personal inconvenience and pecuniary loss; and it also states, that upon a proper application to the Boards of Guardians and the Poor-Law Commissioners, they would probably make the medical officers some compensation for their trouble.

I have, at a very considerable sacrifice of valuable time, complied in every way with the order, and accomplished a most arduous task, filling upwards of forty folio sheets, reporting upwards of 1100 cases, and upon presenting them to the Board of Guardians at Croydon, and applying for some compensation, they directly saw the justice of the application and requested their clerk to write to the Poor-Law Commissioners, who replied that they had no power to grant anything to the medical officers for that purpose.

Since then I have received another order to report all nuisances in the neighbourhood, which are likely to affect the public health. Now it does appear to me most extraordinary, that a medical man, whose time is generally so fully occupied, should be requested to make out returns of the kind without any remuneration.

The first report called for, containing the number of cases, with recoveries, deaths, &c., &c., in the course of a year,—a report very difficult to make out, and occupying much time,—it was then presumed that no other would be required. When a medical man enters into an agreement to attend the sick poor of a district, he never contemplated that he would have the duties of a clerk to fulfil; the weekly reports are of themselves quite sufficient to occupy a very considerable portion of time.

Your attention to the above will confer a great obligation upon your very obedient servant,

GEORGE BOTTOMLEY.
Croydon, July 13, 1838.

THE LANCET.

London, Saturday, July 28, 1838.

In the medical evidence lately given before the Poor-Law Committee, it was shown that the appointment of a Medical Guardian in every Union, and a Medical Commissioner in London, would not only be an arrangement satisfactory to the medical profession, in protecting their members from the unjust censure of ignorant judges, but useful to the entire community. The Medical Guardian, elected by the medical practitioners of the Union, would divide the Union into convenient districts, and, in conjunction with an Assessor appointed by the Guardians, adjust the salaries to the services and duties of the Union. But this would be a small proportion of his services: he would advise the Guardians in any case requiring medical skill, and, from the reports of the medical officers, draw up an annual sanatory report to be submitted to the Guardians, and to the Medical Commissioner, who would condense the results deducible from all the Union returns, into one general Report, to be laid every year before Parliament. The influence which the knowledge collected in this manner would have upon the health, and life, and happiness of the working classes, can scarcely be imagined; an idea of its importance may, however, be derived from a document to which we now invite attention.

The article is entitled "A Report of the Poor-Law Commissioners relative to certain Charges which have been disallowed by the Auditors of Unions in England and Wales." Several charges have been disallowed under the direction of the Poor-Law Commissioners, "which increasing experi-"ence proves it necessary to submit for the "sanction of the Legislature for their allow-"ance;" and, among others, "those charges "caused by nuisances by which contagion "is occasionally generated, and persons re-"duced to destitution." The Commissioners in recognising the error of their ways appear anxious to make some recompense to the public for the evils which the enforcement of the Poor-Law Amendment Act has occasioned, and have taken the steps which they thus describe in the Report addressed to Lord JOHN RUSSELL:—

"During the last two years the public has suffered severely from epidemics. At the present time fever prevails to an unusually alarming extent in the metropolis, and the pressure of the claims for relief in the rural unions, on the ground of destitution caused by sickness, have recently been extremely severe; but, in the course of the investigations into the causes of destitution and the condition of the pauperised classes, carried on under the operation of the new law, and especially in the course of the investigations of the claims for relief arising from the prevalent sickness, extensive and constantly acting physical causes of sickness and destitution have been disclosed and rendered fearfully manifest. With reference to the claims for relief on the ground of sickness, in the metropolis, we have directed special inquiries to be made of the medical officers of the new unions. We have also directed local examinations to be made in parts of the metropolis where fever was stated to be the most prevalent, by Dr. Arnott, by Dr. Southwood Smith, the chief physician of the London Fever Hospital, and by Dr. Kay, our Assistant-Commissioner. The more important communications of the medical officers are comprehended in the medical report prepared by Dr. Kay, with the concurrence of Dr. Arnott."

In the census of 1831 it was found that 4,019,161, or 29 per cent. of the entire population of England and Wales, resided in cities having more than 10,000 inhabitants. The population of the same class of cities in 1801, amounted to 2,381,129—or nearly 27 per cent. of the population. This simple numerical statement demonstrates the importance of devoting the strictest attention to the salubrity of our cities, where such masses of families are accumulated; and the fact that the mortality is 40 per cent. higher in cities than in the entire population, ought no longer to be overlooked, as the causes of death are well known, and the remedy is easy of application. If the annual mortality were reduced from 2.84 per cent. in cities, to 2.03—the average rate of dying applicable to the entire population—the deaths every year in cities would amount to

82,174, instead of 114,963: and who knows but that among the 32,789 annually saved, a father, a mother, a child, a friend, may not be found? Every member of the community is directly concerned in this question.

The excessive mortality of city populations has sometimes been ascribed exclusively to vice and starvation, but this is in direct contradiction with a remarkable series of observations on the mortality of 2034 labourers in the East India Company's service during the 10 years ending with 1834. The mortality under 40 was not so high as in the general population of London, because the greater part of the labourers were healthy men, selected, and admitted into the service between the ages of 20 and 35; after 50 it was higher than the general mortality of London. These men were well supplied with food and clothing; their work, without being hard, ensured regular muscular exercise; in sickness they had rest and proper medical attendance; yet between the ages of 40 and 50 the mortality was 67 per cent., and between 50 and 60 as much as 82 per cent. higher than the mortality at the same ages in all England. Such facts as these annihilate the supposition that the increased mortality in cities is due to want of food and greater misery; nor, can it be admitted, although these men drank freely, that their moral habits differed so greatly from those of country labourers as to account for their greater mortality.* The source of the excessive sickness and mortality must be sought in the generation of effluvial poisons, described with great minuteness in the Reports of Dr. Arnott, Dr. Kay, and Dr. Southwood Smith, from information in great part derived from the parochial medical officers. A small proportion of the metropolitan nuisances is described in detail, and this fully establishes the necessity of immediate interference. We make a few extracts:—

In Lambeth, Mr. Wagstaffe says:—

"According to the district or situation, you will have the different degrees of fever, such as ague, typhus, yellow, and other kinds. There are at the present time many cases of severe fever in and about the parish. These Mr. W. ascribes to the sun acting on the drains and stagnant filth in East-street, New-street, Saunder's-street, John-street, Fountain-court, Frances-court (Lambeth-walk), &c., &c."

Mr. Appleton, of Holborn-hill, says:—

"The district, (Saffron-hill), of which I have the charge, is a very filthy one. There is an open sewer running the whole length of the district; not a small drain, but almost a river of filth, which passes under Farringdon-street, and Bridge-street (where it was formerly known by the name of the Fleet-ditch), and empties itself at the foot of Blackfriars Bridge; upon the very edge of this ditch many of the poor have their dwellings, so that they may be said to live continually in an atmosphere tainted by it. I may next mention that some of the privies in the neighbourhood of this sewer are in a very sad condition; and that the great mass of the houses in this neighbourhood are exceedingly dirty, and contain as many inhabitants as they well can. The great majority of the cases of sickness occurring in this district are in the locality above alluded to, and the diseases most prevalent since I have had the charge (6½ years), are typhus and continued fevers. The number of fever cases in 1837, was about 200."

Mr. F. E. Teush, of Homerton, says:—

"Gentlemen, in answer to your letter of April 27, 1838, I beg to observe that, should the delay appear longer than might have been expected, it has been with the view of making you acquainted with as much information as it was in my power to acquire. I may state that in my district, comprising Homerton and Mare-street, of the Hackney Union, I am seldom without cases of a typhoid character, and have carefully searched through my register of sickness, from Lady-day 1837 to Lady-day 1838, and find there have been 24 cases of severe typhus, of which four were fatal; 15 of the number were in one locality, named Silk Mill-row and Wick-street, attributable, I think, to an obstruction by a dam to a mill, which allows a large accumulation of decaying and other matter of a deleterious nature, likely to cause an atmosphere not at all congenial to health which aided by, I am sorry to say, the innate want of cleanliness and care on the part of the poor, frequently gives rise to fevers of this description, notwithstanding my very urgent and strenuous endeavours to inculcate the importance of it to their own welfare and comfort. There are two or three other places where the drainage is not so good as it might be, which I beg to name, Cross and College-streets, Homerton, Wood's-yard, Well-street."

* See Macculloch's "Statistics of the British Empire," art. Vital Statistics.

"Undrained marsh land is mentioned as a cause of fever in Great Stanmore parish, Edgeware, and the medical officer, Mr. Foote, urges the draining of the Marsh at the public expense.

"Two years past a fever raged at Red Hill, which I attributed to the lodgement of the filth from privies, which I had removed at the time; and the same thing occurred at the Hyde, the fever prevailing there being of the typhoid type; and I consider that, unless the ditch is cleaned, the same kind of fever will prevail again; and also at the marsh in the parish of Great Stanmore, typhus fever lately prevailed amongst the poor."

Dr. LYNCH, of the West-London Union, says:—

"The parish with which I am officially connected comprehends the poorest and most dirty, lowest and worst ventilated parts of the city of London, chiefly inhabited by the humblest classes of the Irish and the most abandoned of both sexes; West-street, John's-court, and Field-lane, with the numberless intricate labyrinths and courts, in which fever seems to have taken up a permanent abode: I have known it to exist there through heat and cold, through wet, and through drought, through every variety of weather, and the district has never been wholly free from it. The absence of cleanliness, the crowded state of the rooms, six or seven inmates sleeping in one small room, intemperance, the accumulation of dirt and filth that are allowed to take place, all contribute to feed disease and to futilise the efforts of the medical attendant to eradicate it. In addition to this, the number of slaughterhouses that there are in the neighbourhood, or on its immediate confines, and the Fleet Ditch, the reservoir of all the contiguous sewers, runs underneath those places above the bed of which many of the houses in the back alleys of Field-lane are only a few feet elevated; all these circumstances constitute the constant source of the generation of contagion.

"The last six or seven weeks we have been called on to attend many cases of typhus fever of a very malignant character, chiefly attacking the labouring classes residing in the dirty and most unhealthy portions of our locality. Upwards of 20 cases have occurred within the last three weeks, three of which terminated fatally, two taken into the workhouse, the other was an out-door casual, for whom we had not room."

The horrible state of the burial grounds is disclosed by Mr. ROBERT BULLEN:—

"The subject to which I call your attention is the cheap burial grounds in the metropolis, which in general are situated in poor neighbourhoods; the graves in these grounds are dug and left open from one Sunday to another, or till they are filled with bodies; no more earth is thrown in them than will just fill up the sides of each coffin; when seven or eight bodies are interred, then it is filled up, and not till then, be that a week or a fortnight; these grounds are in general divided into three or four different prices, as suit the circumstances of the parties; those graves are also dug so close together, that the range of bodies in the adjoining grave may be seen with the heads and feet of others at each end; thus, those long dead, as well as the recent, give forth the mephitical effluvia of death, and it is only for a person that desires to be convinced of the fact just to visit some of those grounds after a heavy shower of rain; one of the reasons why pestilence attacks the poor first, by their visiting those pest grounds as mourners.

"I will now give a case in point: there are four burial grounds for the poor within 200 yards of each other in that densely populated neighbourhood, Golden-lane, Cripplegate, surrounded with houses, and abutting close to the walls; about this time last year a court filled with poor people (not 40 yards from one of these burial grounds) was attacked by fever; so direful were its effects, that the court was ordered to be closed unless it was pulled down or thoroughly repaired."

Mr. EVANS, of Blackman-street, in the Borough, writes:—

"A very malignant typhus fever has prevailed here for some time past, and indeed rages now as bad as ever, and, I think, more fatal in its course. In looking over my books I find that, in the space of nine months, I have attended upwards of 500 pauper cases. * * * Typhus fever has been so contagious that my two assistants caught it in a severe form, but ultimately recovered."

Dr. SOUTHWOOD SMITH states that during last year the medical officers attended no less than 4641 fever cases in the Bethnal Green and Whitechapel Unions alone. Dr. SMITH inspected Bethnal Green, in company with Mr. TAYLOR and Mr. GODWIN, the medical officers. He describes 20 or 30 localities. The following are specimens:

"*Campden Gardens* consist of a number of small ground-floor houses; each house contains only two rooms; that which is the largest is about seven feet by nine, and the smallest barely large enough to admit a small bed; the height is about seven feet. In winter the houses are exceedingly damp; the windows are very small; there is no drainage of any kind; it is close upon a

-marshy district, immediately to be described In this street fever is very apt to break out, and to become more than commonly fatal. Often all the members of a family are attacked by it, and die one after another. During the present season several entire families have been swept off by it; yet the houses stand in an open space, and have little gardens attached to them, so that if they were properly built, and well drained, they might be perfectly healthy.

"*Lamb's Fields.*—An open area, of about 700 feet in length, and 300 feet in breadth; of this space about 300 feet are constantly covered by stagnant water, winter and summer. In the part thus submerged there is always a quantity of putrifying animal and vegetable matter, the odour of which at the present moment is most offensive. An open filthy ditch encircles this place, which at the western extremity is from eight to ten feet wide. Into this part of the ditch the privies of all the houses of a street called North-street open; these privies are completely uncovered, and the soil from them is allowed to accumulate in the open ditch. Nothing can be conceived more disgusting than the appearance of this ditch for an extent of from 300 to 400 feet, and the odour of the effluvia from it is at this moment most offensive.

"Lamb's Fields is the fruitful source of fever to the houses which immediately surround it, and to the small streets which branch off from it. Particular houses were pointed out to me from which entire families have been swept away, and from several of the streets fever is never absent.

"In several houses in *Collingwood-street* fever of the most severe and fatal character has been raging for several months. Part of the street called Duke-street is often completely under water. This street consists of about 40 houses. In 12 of them all the members of the families residing in them have been attacked with fever, one after another, and many have died."

For further details we refer to the report, which has been printed by order of the House of Commons. At another time we shall probably have an opportunity of examining the suggestions offered for the removal of the aggravated evils which decimate not only the metropolis, but almost every city in the empire,—the nuisances and diseases, their foul creatures, being probably more prevalent in small towns than in London.

We cannot help adverting here to the great loss of life sustained by the medical profession, in the haunts of misery and fever. Mr. Evans states, that two of his assistants had fever; and the Poor-Law Commissioners say:—

"Several officers have fallen victims to the prevalent disease. The excuse from one Union, for answers being only given by one medical officer is, that the other had fallen a victim to typhus, caught in the course of the performance of his duties in the infected neighbourhoods."

Mr. Garrett, surgeon, of St. George's East, and Mr. Doubleday, of High-street, Borough, were labouring under typhus when the Report was made; Mr. Gozna, of St. Martin-in-the-Fields, died from that disease; Dr. Fergus, the talented officer of St. George's Parish Infirmary, died from fever; and Dr. Sims was last week cut off by the same unmitigating malady. But our space would fail if we attempted to enumerate the names of one-tenth of the victims—the young, the full of promise, the rife in strength—who have fallen in the discharge of their duties. Others have rushed to their posts; but the cries of the forsaken widows and orphans are lost in the tumult and murmur of the world. The soldier who destroys his fellow-creatures, is recompensed, pensioned, and covered with glory: but the physician of the poor has no reward during his life—has no monument when he ceases to exist; he is suffered to die unregarded and unapplauded, looking death full in the face, struggling with a deadlier enemy to his country than the foe whom the soldier encounters under the sun, with floating banners, and music, and all the "pomp and circumstance of war." Is this equitable and wise? Does a generous nation owe to the memory of these men nothing? Should they be allowed to foresee in hopeless delirium that their children will remain unnoticed, unpitied, unsuccoured by the persons in whose service they have fallen?

UNIVERSITY COLLEGE HOSPITAL.

CASES IN WHICH MESMERISM WAS REMEDIALLY EMPLOYED.—IMPOSITIONS OF SOME PATIENTS.

CASE 1.—Charlotte Bentley, a little girl twelve years of age, was transferred from the the care of Mr. Cooper to that of Dr. Elliotson, on May 26th. She was admitted, originally, for necrosis of the palate, but was transferred to the physician's ward in consequence of great weakness of the loins and legs, which commenced about a month since, and has been gradually increasing since that period. She has now great debility in the spine, extending from the first dorsal vertebra to the sacrum, so that she cannot sit up, although she can sustain herself slightly raised on the elbow. There is great general tenderness of the surface, but it is severest where there is most weakness. There are weakness and tenderness, in a greater or less degree, in all the extremities. To be mesmerised daily for half an hour.

29. Has appeared to be drowsy by the mesmerism. Was sent, apparently, to sleep in twenty minutes. The surface, she says, is less tender.

June 12. Improving since last report; she says the surface is scarcely at all tender. There has been only a temporary drowsiness produced by the mesmerism, since last report.

23. Health better. Was mesmerised by a stranger, and fell, apparently, fast asleep, when she bore pinching and other tests very well. Being suspected of deception, some experiments were performed on her, and she was discharged with the belief that she was imposing.

CASE 2.—Mary Anne Butler, aged 18, was admitted, June 15th. Is not the subject of any hereditary complaint. Twelve years since, on seeing a severe accident, she first became subject to epilepsy, and remained in the fit a long time. The fits recurred, with less severity, every two or three months, they gradually became more frequent, and six years ago she sometimes had as many as thirty fits in a day. The fit was at first preceded by a sense of chilliness, but she is now only warned of its approach by an unusual irritability of temper. Since the catamenia have appeared, the fits have been more violent at the menstrual period. She was very regular until six months ago, since which period, until ten days since, the catamenia have been suppressed. During the paroxysms, her legs and arms are drawn up and much convulsed; this state lasts for five or ten minutes; insensibility succeeds, and she sleeps generally for two hours; she awoke in her senses. On coming out of the fit she laughs and sings. Before its occurrence, she is affected with the globus hystericus. She complains of constant pain and uneasiness about the head. Sleeps well, appetite good, bowels regular.

16. Mesmerism was performed and produced an apparent state of drowsiness.

17. Went apparently into a very sound sleep to day, from the mesmerism. After a time the "sleep," which invariably followed the mesmeric process, was suspected to be feigned; this was, by experiments, ascertained to be the fact, and she was forthwith discharged.

CASE 3.—Ann Ross, aged 23, was admitted May 1st. She is unmarried. States that she suffered from weak eyes when twelve years of age; the eyes got better, and epileptic fits came on, returning once in every two months. They have since become gradually more frequent, and she now has a fit every fortnight, lasting about a quarter of an hour, and, not preceded by any premonitory symptoms. Three or four days after a fit she is seized, in the morning, with involuntary movements of the arms and legs, which render her incapable of standing. These involuntary movements continue daily for two or three hours, until she has another epileptic attack. They leave her with a headach, more or less severe. Pulse 100, sharp; tongue white; bowels regular; a dull pain, not increased by pressure, in the right lumbar region.

May 2. To be mesmerised daily for half an hour.

5. Involuntary movements less; no sensible effects from the mesmerism.

6. Had an epileptic fit this morning; the convulsions lasted ten minutes; the coma twenty minutes.

7. No involuntary movements; mesmerism made her feel sleepy.

12. Apparent sleep produced after twenty minutes manipulating; pinching and shaking failed to arouse her; awoke after three hours. She says that before she fell asleep she experienced a curious twirling sensation in the epigastrium; she then felt compelled to close her eyelids, and at the moment a red flame appeared to flash before them, after which she lost all consciousness.

13. Sleep apparently produced in three minutes.

15. Involuntary movements as usual.

22. No involuntary movements since the last report; sleep produced in one minute. She is always roused by blowing in her eyes.

23. Involuntary movements again; feigned to fall asleep, when the operator, standing a yard off, looked stedfastly at her.

25. No involentary movements this morning; no fit; sleep produced in a few seconds.

27. Involuntary movements violent; fit lasting half an hour.

June 2. No involuntary movements since last report.

3. Had a fit to day. Mesmerised by Dr. Elliotson, and soon relieved.

4. Symptoms of "somnambulism" have appeared for several days past, on blowing two or three times into the eyes. To-day she was made to walk about during the somnambulism. Answers questions during this state sensibly, but appears to think that she is at home, and is being questioned by her friends.

18. To-day she said that an angel had appeared to her, and told her that she would be cured in three months, but that the disease would be prolonged if a decayed tooth (the second left bicuspid of the lower jaw) was not removed, and that it was to be extracted in twenty-four hours. The prophet was to appear again in seven days.

19. She was sent to sleep, put into a state of somnambulism, led into a private ward, and the tooth extracted in the presence of several gentlemen. The patient showed no indication of feeling, and appeared to know nothing about the operation when she awoke, until she tasted the blood in her mouth.

25. The statements which this artful patient made, in the shape of prophecies, in order to render herself an object of observation, and sustain the deception she had commenced, were very bold and impudent She said that a prophet had appeared to her, and told her what answers to give to some questions which had been put to her a few days before ; for instance, that the involuntary movements would be less violent and shorter ; that the epileptic fits would gradually disappear at the end of three months ; and that the next fit would be on the 1st of July ; that she was to remain each day for one hour and twenty minutes in mesmeric sleep ; that she could be mesmerised through a wall or door, and that it would require two hours to produce sleep in the former case, half an hour in the latter! That another tooth, which she named, was to be removed in twenty-six hours. This tooth, accordingly, (the second upper molar of the left side), was extracted in the presence of Dr. Elliotson and several other gentlemen, without the woman's evincing the slightest evidence of pain ; but a pupil stated that the pulse, which, previously was 110 or 112, fell, very soon after the tooth was extracted, to 100.

July 2. No involuntary movements till yesterday morning, since the 24th of June. No fit yesterday. She pretended to hold conversation with the prophet during somnambulism, and that he told that she had no fit yesterday in consequence of the interval from the last fit being prolonged by the removal of the decayed tooth. Some pupils wishing to detect any deceit in her, stated in her hearing, that they had seen somnambulists awakened by pricking the index finger. This was done and she awoke. She was again, seemingly, sent to sleep, and then they said that O'Key had predicted that Ann Ross, on this day, would not be awakened after the first time by any one but the physician's clerk. A pupil then held the eyelid, slightly raised, and pretended that he blew into her eye, while, in fact, it was the clerk who blew. She did not awake.

July 3. To-day she was seemingly sent to sleep, and it was then pretended that Elizabeth O'Key had prophesied many elaborate circumstances concerning her eyes, her hearing, her waking &c. ; that she would roll her head from side to side for half a minute at one time ; that she would feel on one side when pinched, and afterwards bare sensibility everywhere ; and, finally, that on pinching the nose gently she would awake and say, like Jane O'Key, "God bless my soul." All these alleged "prophecies" were read distinctly over in her hearing, and remembered and followed with curious fidelity, excepting that she had a difficulty in opening one eye singly, when that part of the deception had to be attempted.

4. To-day it was pretended that O'Key had prophesied that she would become delirious. After a transverse movement was made before the thorax, a show of delirium immediately came on ; the result will be found in the following remarks by Dr. Elliotson, made at a clinical lecture on the 5th inst.

He said, respecting the girl Bentley, that the excessive tenderness of the surface under which she apparently suffered, was by no means an uncommon occurrence in young women. There were no symptoms of disease, besides this tenderness, excepting weakness, and, of course, it was difficult to say whether this was feigned or not ; it was merely a symptom depending on the declaration of the patient ; apparently under the use of mesmerism alone this girl had recovered the use of her limbs. It was to be remembered, however, that the loss of power in them had come on suddenly and had not existed long. We found, occasionally, that loss of power, as in the present case, would suddenly occur, and disappear as suddenly : he would not, therefore, say that this girl had simulated disease, though as regarded the effects of mesmerism, she had proved to be an impostor. He (Dr. E) had for some time noticed that she did not appear to go to sleep in a natural manner. The manner in which her head dropped was suspicious. He was determined, however, before condemning her, to watch her carefully, and even after some experiments on her he did not feel convinced that she was imposing, though his suspicions still remained. He taxed her with deception, but she stoutly denied it. But although she firmly withstood a show of pain in the surface generally, yet when attempted to be produced

within the nostril she at once displayed signs of acute feeling, and the proof being thus far satisfactory, she was immediately discharged from the hospital. However, she had got well of her alleged disease. He believed the mesmeric movements produced more or less drowsiness in her, but he did not consider that they exerted any influence beyond that.

In the second case (Butler's) he had suspected the patient unknown to any one; he noticed that the patient was sent to sleep remarkably quickly. She was admitted only on the 15th of June; there was no improvement in her disease, which was hardly to be expected; indeed, by that time (the 5th of July), this did not surprise him. He had reason, however, to believe that she exaggerated regarding the degree to which the mesmerism affected her. He accordingly taxed her with deception, and she confessed that the sleep had been feigned. It was remarkable that she should resort to imposition, as she was well known to a medical gentleman in the country, who had repeatedly seen her during the fits, and sent her up to the hospital, and there was no reason for her deceiving.

The case of Ross was one of undoubted epilepsy. Under the use of mesmerism the fits, though not rendered less frequent, were much mitigated in violence, and the involuntary movements almost entirely subdued. There was nothing extraordinary in these facts, for the same result had occurred in similar cases, and even when the mesmerism had no sensible effect upon the patient. Various means were employed to test the sleep, and she bore well every attack upon her sensation. She was, however, suspected by Mr. Wooldridge, who resorted to a plan (recorded in our report) to ascertain if his suspicions were correct. When he (Dr. E.) saw her in the simulated delirium he was at once convinced that was feigned; he never saw worse acting. He told her to cease the nonsense she was talking, and on threatening her, which he did, she acknowledged that she had, on no one occasion, felt more than a slight drowsiness from the mesmeric movements. All else, she admitted, was feigned. He had no doubt that the magnetic process had produced some effect on the violence and duration of the fits, from one of which she had recovered, under mesmerism, in a few minutes; the subsequent coma lasted only a very short time, and no involuntary motions occurred.

In alluding to these patients he wished to say that it was his earnest desire to arrive at the truth regarding mesmerism, for which he cared nothing excepting so far as to test its merits. Because in the cases in question the patients had simulated the effects of the mesmeric process, that was no reason why mesmerism itself should be false. There were scarcely a single disease which was not occasionally simulated. Examples of this, in rheumatism and other diseases, were quite familiar to army and navy surgeons. So women sometimes feigned that worms passed from their vagina, or rectum; and hæmatemesis and discharge of blood per anum were simulated. It was not wonderful that deceit was practised in the cases under consideration, for persons suffering under nervous diseases had a great disposition to impose; and young ladies, when afflicted with hysteria, would often feign symptoms, or very much exaggerate those under which they really suffered; and states like those resulting from this process were to be found described in most works on medicine; yet people, opposed to the doctrines of Mesmer, brought those very cases forward as *proofs* against the influence. The cases under consideration showed the necessity of caution and experience before conclusions were drawn respecting mesmerism. For the future he should, in every case in the hospital, act in the following manner, if he had the least suspicion that the patient was feigning, or exaggerating, or if any gentleman, who witnessed the experiments, had such suspicion. If he (Dr. E.) could not remove the doubts which he himself entertained, after a very careful and attentive examination, he should have nothing more to do with the patient. No one could persue the investigation of the subject with more honesty or rigorous scrutiny than himself. The cases of imposition did not, in any way, alter his opinion respecting the powers of mesmerism. He was as firmly as ever convinced of their reality, and he should still continue to give to the world, and to show to small parties, (for he could not exhibit it, as he wished, to a large number of persons at once), such facts and experiments as tended to elucidate the truth. He felt perfectly certain respecting the termination of the inquiry. The occurrence of imposture from time to time was nothing but what he expected; it was common in all inquiries of a like nature, and such occurrences would only render him more determined to sift it to the bottom, more willing to show it in public, and to grapple with the objections to it. The worthy Doctor was much cheered at the conclusion of his lecture.

Case 4.—James Isaacs, aged 19, was admitted May 19th. He does not know of what his parents died. His health was in general good, till about two years and a half ago, when he had his first fit; this was followed by another the next day. He had no more till about five weeks ago. At that time they at first occurred every other day, but gradually became more frequent, till at the time of his admission he had sometimes four fits daily. Sometimes convulsions occur in the fits; at other times coma only exists. Previously to the first fit, he had been four months in a rope-manufactory,

where he had been very much confined, and thinking that this might be a cause of the fits, he left his employment and got a more healthy occupation. Afterwards he became a tripe-boiler, and in a few months was again attacked with the fits. He has pain in the head, back and chest; bowels constipated; perspires very much.

May 25. Since his admission has only had one fit daily; one day he had no fit. Has been mesmerised once, sometimes twice, daily. The mesmerism sends him to sleep in about two minutes and a half. Sometimes he is still in the mesmeric state, sometimes slightly convulsed. Pain in the head much less.

June 1. Has had no fit since the last report; had a slight fit to day.

9. No fit since the last report. Says he feels quite different to what he did.

16. He had to-day a very slight fainting fit.

19. Has been mesmerised to day with the usual effects. During the mesmeric sleep, he occasionally gets up and walks about. No fit since last report.

28. Had an ordinary epileptic fit, which lasted twenty minutes.

July 12. Left the hospital because he was suspected of pretending sleep, &c.

Dr. Elliotson in lecturing on this case said, the man certainly appeared to go to sleep, whether he was as soundly so as he seemed to be he (Dr. E.) could not say. Whatever might be the fact regarding this, however, the improvement in the disease was decided. He had also seen great improvement when the mesmerism produced no sensible effect. Some persons thought this man feigned sleep; perhaps he appeared to sleep more soundly than he really did. The insensibility to pain, which some persons who feigned sleep evinced, was in some cases, very remarkable, and he had alluded to instances of this kind in his "Physiology." Insensibility to pain was not by any means a criterion of sleep. But to judge from the concomitant symptoms which characterise sleep, such as the expression of the countenance, &c, he should say the man Isaacs did not feign the state.

PENNSYLVANIA HOSPITAL.

Case of Varicose Veins, cured by means of needles introduced through the veins, after the method proposed by Davat.

George K——, a German, aged 57 years, was admitted into the wards on the 19th of July, 1837, for varicose veins, from which he had suffered for several months. He had had a large ulcer caused by the veins, for which he had been treated in the city by bandages, &c. The ulcer was much reduced in size when he entered, and, after appropriate treatment, healed. On the 12th of August, Dr. Norris introduced two acupuncture needles, one behind the vein, and the other through it in a line oblique to its axis, and surrounded both by a figure-of eight-ligature. Little pain was caused by the operation; the limb was then elevated in a fracture-box; lead water cloths applied, and the antiphlogistic treatment directed.

15. The patient complains of no pain, little inflammation has occurred; ligature tightened and treatment continued.

17. Slight inflammation at the sutures. Same treatment.

19. The needles and ligatures were removed, some inflammation around the part, but none to any distance above or below.

21. Inflammation increased; slight ulceration at the points where the needles entered. A poultice to the part and antiphlogistic treatment continued.

Sept. 4. The ulcers have healed; the vein perfectly obstructed; bandages and compress applied along the course of the vein.

7. Allowed to walk about; has slight porriginous eruption; treated accordingly.

15. Vein obliterated entirely; patient walks without feeling any inconvenience from it.

17. Discharged entirely well.

Within a few weeks the patient was seen, having had no return of his complaint, and continuing constantly at work.

Case of Rupture of the Larynx, from a blow on the Pomum Adami, cured in two weeks.

F. N——, aged 45 years, a watchman, whilst attempting to arrest a man in the neighbourhood of the river, on the night of the 19th of October, 1837, was knocked down and struck on the throat by a large piece of coal. He was seen immediately by a physician, who found him nearly strangled, unable to speak, and with constant spasm, whenever he attempted to speak or swallow. He was bled freely, and sent to the hospital, eighteen hours after the accident.

20. The throat much swelled, and inflamed externally; fauces slightly reddened; aphonia complete; breathing stertorous; barely able to whisper, and swallows with great difficulty. The cartilages of the larynx are loose and crepitant, the *thyroid* separated and moveable, one on the other. Examination of the larynx causes violent gagging; ordered sixty leeches to the outside of the throat, and warm cloths afterwards, to promote the bleeding. Gruel and tea for diet.

October 21. Rested well; voice somewhat stronger; less pain in the throat; swallows rather better. Ordered the same number of leeches; injection to bowels, and other treatment continued.

23. Voice quite audible, though very hoarse; swallows well; no pain on slight

pressure on the larynx; sitting up in bed; has swallowed but little since his admission. Ordered weak broth for diet.

21. Voice gradually returning; ordered blister to the throat, to be followed by a poultice.

26. Walking about; union of cartilage quite firm; voice improving; blister repeated; treatment continued; brown mixture for cough, which troubles him slightly.

28. Voice nearly well, though hoarse; swallows as well as ever; cartilages united entirely.

November 4. Patient discharged; voice strong; no motion in the cartilage; slight hoarseness.

December 15. The patient was seen to-day; he is able to attend his duties; speaks clearly; but is unable to call the hour, without some difficulty; has been free from pain since he was discharged.

CASE OF DISLOCATED CLAVICLE, CURED IN TWENTY-TWO DAYS, WITH DEFORMITY.

Michael M——, labourer, aged 35, fell, in going down stairs, on the 27th of October, 1837, and struck the extremity of the shoulder. He, however, took little notice of it until the 30th, when, becoming alarmed at the continued stiffness, he consulted a physician; by him it was mistaken for dislocation of the humerus, and sent to the hospital to be reduced. The shoulder was flattened, and apparently hollow near the clavicle, owing to the projection of its scapular extremity; but the rotundity of the shoulder was easily restored by forcing the humerus upwards. He was dressed with the apparatus for fractured clavicle, (mentioned in a previous number,) and placed in bed. As long as he continued perfectly at rest it remained reduced, but the least motion forced it out again. He was therefore dressed with Dessault's bandage, and a large compress over the end of the clavicle; but this did not answer much better; so that, after being confined for some days, all was removed except the sling, the patient being exceedingly restless. In this way, he was allowed to walk, and on the 26th of November was discharged, having the entire use of the arm, although the clavicle still projected a little over the shoulder-joint.—*Philadelp. Med. Examiner*, April, 1838.

CASE OF AMPUTATION AT THE SHOULDER-JOINT, FROM EXTENSIVE LACERATION IN MACHINERY.

Walter L——, a black man, aged 29, was admitted early on the morning of November 17th, 1837, for a very bad compound fracture of the hand, forearm, and arm. He was engaged in attending a steam-engine, for kneading dough, at a biscuit bakery, and whilst placing the dough under a heavy lever, by which the crackers were cut, stamped, &c., his left hand was drawn into the machinery up t .he shoulder. The arm was terribly lacerated, being punched at regular distances from the fingers up to the shoulder; the bones of the hand and forearm were broken into many pieces; humerus fractured in three places; the brachial artery divided, and bare to within two inches of the axilla. He had lost much blood immediately after the injury, but had no hæmorrhage at the time of his admission, one hour and a half afterwards. The skin was torn from the chest for several inches, and from the neck to within one inch of the lower jaw; the head of the humerus was dislocated, and the skin torn some distance on the back part of the chest. On his admission, the threads holding the arm together were divided within four inches of the axilla, the vessels tied, and stump dressed with dry lint. The patient was then put to bed; ordered *tinct. opii* gtt. lxxx., with a little wine and water. A consultation at 12½, P. M., determined on amputation at the shoulder-joint. The man having reacted sufficiently, the operation was performed by Dr. Randolph, in the presence of the surgeons of the house, and several medical men. The artery was compressed above the clavicle; and the arm being much lacerated, the vessels were first dissected up and tied; the muscles on the top were divided by the catlin; the capsular ligament divided, and the head of the bone turned out. The muscles on the axilla were next divided, the smaller vessels tied, and a flap formed by bringing the deltoid, &c., to the side. The usual dressings were applied, and the patient put to bed; pulse good; little blood lost during the operation; diet, sago; ordered t. opii, gtt. lx.

Night. Pulse very quick—considerably over 160; cold sweat; no hæmorrhage; complains of little pain; ordered wine ℥iii, in sago; *laud.* gtt. l., and hot tins to extremities.

19. Pulse fuller—165 in the minute; skin warm and pleasant; slept tolerably; ordered *t. opii*, gtt. lx., and same treatment.

Night. Pulse slower—about 130; skin warm and moist; laudanum repeated; continue wine, &c.

20. Great prostration; pulse quick and irregular; ordered hot egg-nogg, and stimulated very freely.

20. Died at 2 A. M., having never entirely recovered from the shock to his nervous system. There was no examination of the body.

HOUSE-MAID'S KNEE.

To the Editor of THE LANCET.

SIR:—The following detail of a case commonly called "house-maid's knee," I beg to forward to you, and should you deem it worthy of your notice, I shall feel obliged

by your inserting it at your earliest convenience. I am, Sir, your obliged and humble servant,

WM. LAMBTON, Surgeon.

Rotherhithe, July 4, 1838.

Kitty O'Brien, ætat. 23, of a delicate constitution and pallid complexion, applied to me for relief on Sunday, the 10th of June, for a swelling in the left knee-joint. She states that she has been in Guy's Hospital for *three weeks*, under Mr. Aston Key, and had left on Tuesday, the 5th of June, in very delicate health. Complains of great pain in the left side; has no appetite; lives on tea and a "morsel" of bread; spirits much dejected. On inquiry I found that she has never had the slightest appearance of catamenia; has two sisters, one twenty and the other eighteen years of age, and neither of them have menstruated.

She has been in service from a child, and at the last place, where she had lived for *four years*, she was in the habit of washing stone floors, and never remembers, during the whole of that period, using a mat to kneel upon more than half a dozen times, although her "mistress had repeatedly scolded her for being so careless of herself as to wash the kitchen floor without kneeling on a mat, and let the damp strike into her knee." Never had a pain in the right knee-joint, which she attributes to leaning her weight on the left, while in the act of washing the floors. While in hospital has had leeches and blisters applied to the knee; had one blister applied by a medical man since she left the hospital.

The plan of treatment I adopted was to exhibit two grains of the sulphate of quinine, in the form of a pill, *three* times a-day; to have *whatever* she might fancy to eat, with a pint of porter at dinner, and another at supper; to attend strictly to the bowels, for which purpose I ordered her a dozen pills, each containing one grain of calomel and four grains of comp. ext. of colocynth. One to be taken when required.

She improved, after a few days, under this treatment; and on Monday, the 18th of June, I ordered her—

℞ *Iodine*, 3j.;
Hydriodate of potash, ℈j.;
Fresh lard, ʒij. Mix; make an ointment. Apply it to the knee three or four times a-day, taking half an hour each time to rub it well in.

I have seen her daily since the ointment has been in use, and it is quite gratifying to find the knee gradually improving.

Last Monday, July 2, she called and stated that she was quite well. She has been taking quinine for three weeks, and has been using the iodine ointment for a fortnight. The pain in the side has left her; her countenance is quite cheerful; the swelling in the knee is *completely* gone; it is now of the same size as the other, and she can walk comparatively well, being, of course, a little weak.

Thus, then, I find that she has taken during the time she has been under my care—

Sulph. of quinine, 3j. xii. gr.;
Calomel, gr. xviii., combined with *ext. of colocynth*, 3j., gr. xii., internally.

She has besides used *three* boxes of ointment, making in all—

Iodine, 3iij.;
Hydriodate of potass, 3j.

Although she may now be termed cured, I have recommended her continuing the medicines for some short time longer, when I intend to put her under a course of the tincture of the muriate of iron.

A DRUGGIST PRACTISING UPON HIMSELF.

To the Editor of THE LANCET.

SIR:—In the last number of your valuable Journal you give a case of death arising from the ignorance of a Yarmouth druggist. A similar event has latterly occurred in London, but under different circumstances. An old druggist, in extensive practice, was attacked by the usual symptoms of strangulated hernia. The *Doctor*, for so he was called by his customers, prescribed for himself, under the notion that the disease was an affair of chalk mixture; and would see no surgeon for some time. A surgeon was, however, sent for at last, and operated; but the bowel had mortified, and death ensued shortly.

This druggist had faith in himself, and while incapable of recognising strangulated hernia, would, no doubt, have undertaken its treatment in a patient, with as much confidence as in his own person. He has left a large family. It is melancholy to reflect, that in the present state of medical law, families led to delay sending for medical advice, by ignorant druggists, have no legal remedy. The lives of the poor are left absolutely at their mercy. Is this right? Should every facility be given to suicide in order to ensure the liberty of Englishmen?

Why are the druggists of this country left ignorant of chemistry, and of their own branch of practice—the materia médica? Why are they unable to test the properties of drugs? It is only by neglecting their own branch that they are able to delude and destroy the poor. At the same time, I must confess, that so long as surgeons are found retailing and vending halfpennyworth's of drugs, and playing the tradesman, tradesmen will be found playing the doctor. Yours, &c.,

M. L.

[This letter has been properly authenticated.—ED. L.]

IRREGULARITIES IN CONDUCTING

THE LATIN EXAMINATIONS AT APOTHECARIES' HALL.

To the Editor of THE LANCET.

SIR:—The Latin examination at Apothecaries' Hall has, for some time past, been announced to take place on Saturdays, at half past three P.M. Consequently, students come up from the country thinking they will be able to offer themselves for examination in the course of a few days, and again return home. But this expectation is far from being realised. Although upwards of forty names are already entered, there has been no examination *for upwards of a month*, and the only answer to the question, "When will it take place?" is, "Not this week; call again in a few days, and I shall perhaps be able to tell you when." This procrastination is productive of most serious inconvenience to students, by compelling them to remain away from business for an indefinite period.

If you could point out any way in which the evil might be remedied, you would greatly oblige the whole class of medical students, of whom

I AM ONE.

London, July 24, 1838.

*** It is probable that the evil of which our correspondent complains will be removed in consequence of the publication of this note. When the Court of Examiners are made aware of the inconvenience to medical students which results from its present arrangement, we cannot believe that any body of respectable persons will continue to subject many unoffending young gentlemen to such an annoyance as the one that is described by our correspondent.

BRITISH MEDICAL ASSOCIATION.

Tuesday, July 24, 1838.

W. P. James, Esq., of 27, Melton-street, Euston-square, was admitted a member.

A letter was read from Dr. Maunsell (Dublin) stating his readiness to communicate with the Association, and his opinion "that the time appeared to have arrived when a general measure for the arrangement of the profession should be sought for, and the anxiety that a co-operation should be effected between the members of the profession."

The report of the proceedings of the Council with respect to their exertions regarding the New Poor-Law medical arrangements was read, received, and adopted. A vote of thanks was proposed and carried to Dr. Webster, for the able manner in which he had drawn up the above report.

After some further discussion it was eventually agreed that the report should be read before the general body of the Association at a meeting which will be held on Tuesday, the 14th of August, at Exeter Hall, at 8, P.M.

[The above was communicated at too late a period to form part of our report inserted at p. 622.—ED. L.]

BOOKS RECEIVED.

On the Nature and Treatment of Inflammation. By James Macartney, M.D. Longman and Co., London, 1838. 4to. pp. 125.

On the Curative Effects of Simple and Medicated Vapour, applied locally, &c. By James Wilson, M.D. Churchill, London, 1837. 8vo. pp. 145.

A Treatise on the Nature and Treatment of Hooping Cough, with an Appendix containing Hints on the Management of Children. By George Hamilton Roe, M.D. Churchill, London. 8vo. pp. 258.

TO CORRESPONDENTS.

A Member of the College and Hall.—QUESTION.—Supposing a person to have been in practice, illegally, for four or five years, at the expiration of which time he becomes qualified, is he then liable to a prosecution for his previous practice, whether or not he attempts to recover his bills?—ANSWER.—An action, in order to be sustained must be commenced *within* six months from the commission of the offence. If the party in question practised as an apothecary, illegally, the fact of his subsequently obtaining the licence of the Hall, would not enable him to recover the amount of his charges in a court of law for medicines which had been prescribed and delivered at a time when he was *not* qualified to practice as an apothecary.

We are obliged to our correspondent for the offer, but we have not space for *the lectures* in question.

F. B. will find the communication which he expected in our present number.

The paper forwarded to us by *W. E. P.* is of too speculative a nature to suit our columns. We will willingly insert anything *practical* from the same quarter.

Communications have been received from *Dr. Clanny, E. S. S., H. C. M., Mr. E. Wilkinson, W. R., Mr. E. Thompson, Mr. Glen, Mr. Kilburn*, and *Glasguensis*.

The communication of *Dr. Imray* shall be inserted in an early number.

We have received *Mr. Hare's* letter.

Mr. Bevan, Bunhill-row, London, we believe.